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ABSTRACT

This report discusses the development of procedures for establishing teacher estimates of minimal acceptable, desired, and predicted levels of student performance on specific reading items and across reading skill areas. Statewide estimates were obtained by collecting and averaging item estimates from samples of teachers throughout the state, and district-wide estimates were obtained by collecting item estimates from groups of teachers using consensus procedures. Item estimates have been compared directly to student performance on the items, and individual item estimates have been averaged across reading skill areas for comparison with student performance across the same skill areas. The minimal acceptable and desired estimates across skill areas have been used as criterion measures to establish relative strengths and weaknesses in student performance. These criterion measures have also been used in conjunction with normative measures across the same skill areas to establish a more complete profile of the adequacy of student performance. Teacher outcomes studies have been conducted in three assessment projects. The pilot study was conducted during the 1973-74 9-year-old Minnesota Reading Assessment. The questionnaire contained 22 items across four reading domains and various difficulty levels. The 22 items were selected from the 189 items administered to students in one of three independent student samples. The teacher samples consisted of third and fourth grade classroom teachers and reading specialists in a subsample of the schools in each of the student samples. (Author/DEP)

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# Teacher Outcomes Studies: The Development of Methods for Obtaining Teacher Estimates of Minimal and Desired Student Performance

By

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One area of concern in testing and assessment has been that of establishing a standard of performance, or a criterion, against which student performance can be measured in making decisions about changes in curriculum and instruction. This paper discusses the development of procedures for establishing teacher estimates of minimal acceptable, desired, and predicted levels of student performance on specific reading items and across reading skill areas. Statewide estimates were obtained by collecting and averaging item estimates from samples of teachers throughout the state, and districtwide estimates were obtained by collecting item estimates from groups of teachers using consensus procedures. Item estimates have been compared directly to student performance on the items and individual item estimates have been averaged across reading skill areas for comparison with student performance across the same skill areas. The minimal acceptable and desired estimates across skill areas have been used as criterion measures to establish relative strengths and weaknesses in student performance. These criterion measures have also been used in conjunction with normative measures across the same skill areas to establish a more complete profile of the adequacy of student performance.

Teacher outcomes studies have been conducted in 3 assessment projects. The pilot study was conducted during the 1973-1974 9-year-old Minnesota Reading Assessment. Designed by Research Triangle Institute, Minnesota Department of Education, and University of Minnesota Department of Education staff, the questionnaire contained 22 items across 4 reading domains and various difficulty levels. The 22 items were selected from the 189 items administered to students in 1 of 3 independent student samples. The teacher samples consisted of third and fourth grade classroom teachers and reading specialists in a subsample of the schools in each of the student samples. Each booklet contained the same 22 items with instructions to make 3 estimates (in intervals of 10%) of student performance--the minimal acceptable outcome, the desired outcome, and the predicted outcome. These were defined[1/] as follows:

1. Minimal Acceptable Outcome - The percent of Minnesota 9-year-olds you believe must be able to respond correctly to a particular reading item in order for you to consider reading instruction to be providing essential reading skills to these students.

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[1/] More complete definitions of these terms may be found in attachment Ia.

2. Desired Outcome - The percent of Minnesota 9-year-olds you believe should be able to respond correctly to a particular reading item.
3. Predicted Outcome - The percent of Minnesota 9-year-olds you believe will respond correctly to a particular reading item.

The booklets were distributed to the school principals at the time of the student testing. The principals distributed the booklets to their teachers; and each teacher was requested to complete the booklet and return it to the Minnesota Department of Education within 10 days. Each packet included a letter from the Commissioner of Education requesting the teachers' cooperation, a fact sheet about the assessment program, and a self-addressed envelope for returning the questionnaire. A few weeks after the distribution, a letter was sent to each principal indicating the number of teachers in the school who had not returned their booklets and requesting cooperation in obtaining these. The booklets were collected at the Minnesota Department of Education and forwarded to the Research Triangle Institute for coding and analysis.

Of the 762 teachers selected, 620 responded.[1/] Mean estimates for minimal acceptable, desired, and predicted outcomes were calculated for each item by sample, and overall mean estimates and standard errors were calculated across the 3 samples. These are shown in attachment Ib. The 3 types of outcomes were also calculated by type of teacher:

a. Third grade classroom teachers
b. Fourth grade classroom teachers
c. Reading specialists - third and fourth grades only
d. Reading specialists - all elementary grades.

These estimates are given in attachment Ic.

This pilot study demonstrated the technical feasibility and potential educational utility of the teacher outcomes approach. The teachers' estimates for each item were relatively stable within and across the 3 samples, indicating basic reliability of the instrument. Table 1 shows that the teachers' estimates of predicted performance were generally close to actual student performance. For 17 of the 22 items, the teachers' estimates

[1/] The 3 samples were independent, consisting of all eligible teachers in a subsample of the schools in each of the 3 student samples. Schools could be (and occasionally were) selected for more than 1 sample. Thus, some teachers were in more than 1 sample. The numbers of teachers responding in samples 1, 2, and 3 were 232, 237, and 251, respectively.

Table 1

Minnesota Teacher Outcomes Study

| Item | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 1A | 43.4 | 73.3 | 59.5 | 50.3 | 9.2 |
| 1B | 35.6 | 64.4 | 47.6 | 57.8 | -10.2 |
| 2A | 56.2 | 84.5 | 71.2 | 79.7 | -8.5 |
| 2B | 59.3 | 86.8 | 74.8 | 90.4 | -15.6 |
| 3A | 47.6 | 76.1 | 60.0 | 73.9 | -13.9 |
| 3B | 46.5 | 75.1 | 58.7 | 52.8 | 5.9 |
| 4A | 5[illegible].3 | 86.3 | 73.4 | 87.1 | -13.7 |
| 4B | 4[illegible].7 | 75.8 | 59.7 | 74.1 | -14.4 |
| 5A | 36.7 | 65.7 | 47.4 | 37.0 | 10.4 |
| 5B | 42.4 | 70.7 | 55.6 | 58.4 | -2.8 |
| 6A | 41.3 | 70.1 | 53.9 | 60.8 | -6.9 |
| 6B | 46.5 | 74.9 | 60.6 | 78.9 | -18.3 |
| 7A | 44.8 | 74.9 | 59.5 | 76.2 | -16.7 |
| 7B | 50.2 | 79.5 | 66.4 | 71.0 | -4.6 |
| 8A | 46.4 | 76.4 | 61.2 | 73.2 | -12.0 |
| 8B | 52.7 | 82.2 | 68.9 | 76.4 | -7.5 |
| 9 | 41.3 | 71.2 | 52.7 | 33.6 | 19.1 |
| 10A | 62.4 | 90.6 | 79.2 | 87.8 | -8.[illegible] |
| 10B | 54.4 | 83.9 | 69.1 | 90.4 | -21.3 |
| 11 | 50.7 | 80.2 | 64.9 | 77.4 | -12.5 |
| 12 | 47.9 | 77.8 | 62.4 | 68.6 | -6.2 |
| 13 | 46.9 | 77.6 | 60.9 | 59.9 | 1.0 |

of predicted outcomes fell within 15 percentage points of the actual performance; for 10, they fell within 10 percentage points of the actual; and for 3 they fell within 5 percentage points of the actual student performance. For 5 items, the student performance was above the teachers' mean desired level; and for 1 item, the student performance was below the minimal acceptable level. The level of accuracy in predicting student performance indicates that the teachers have a reasonable perception of the capabilities of their students and lends confidence in using their subjective judgments of minimal and desired outcomes in determining the acceptability of student reading performance.

A survey of a sample of the responding teachers provided further evidence that the instrument was comprehensive and potentially useful. A questionnaire was sent to 30 of the responding teachers to determine their understanding of the instructions and format of the original booklet and their attitudes toward its potential usefulness. The responses were generally favorable. Almost all of the teachers said they understood the definitions, though most of them said they felt uneasy estimating statewide performance. These teachers felt the study could be useful. The results of this survey may be found in attachment Id.

This pilot study was followed by 2 other studies designed to increase the usefulness of the teacher outcomes process in establishing criterion levels for student performance. In Maine a statewide instrument was used in which teacher estimates were obtained for a more adequate sample of reading items measuring certain reading skills. In the Richfield, Minnesota, Public School District, groups of teachers used consensus procedures to establish criterion levels for all reading items in the assessment.

In the 1973-1974 9-year-old Reading and Writing Assessment in Maine, the teacher outcomes booklet consisted of 15 reading items from 2 themes, with complete coverage of all the items measuring 1 theme. The scoring information for open-ended items was included. As in the Minnesota study, the teachers were requested to make statewide estimates of minimal acceptable, desired, and predicted outcomes. Three samples of teachers were selected by subsampling the schools in the 3 student samples. Data collection was conducted as in the Minnesota study.

Table 2

Maine Teacher Outcomes Study-Item Results

| Item | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 1 | 51.3 | 80.8 | 66.8 | 73.0 | -6.2 |
| 2 | 55.1 | 82.4 | 69.5 | 81.5 | -12.0 |
| 3 | 34.4 | 61.0 | 44.4 | 32.2 | 12.2 |
| 4 | 44.9 | 72.5 | 56.4 | 40.3 | 16.1 |
| 5 | 54.4 | 81.6 | 68.5 | 84.8 | -16.3 |
| 6 | 50.5 | 76.5 | 62.4 | 59.9 | 2.5 |
| 7A | 57.2 | 85.0 | 72.0 | 75.3 | -3.3 |
| 7B | 53.9 | 79.5 | 66.2 | 52.0 | 14.2 |
| 8 | 45.6 | 72.7 | 57.2 | 68.8 | -11.6 |
| 9A | 50.1 | 78.1 | 63.6 | 68.3 | -4.7 |
| 9B | 43.3 | 71.3 | 55.8 | 62.1 | -6.3 |
| 10 | 55.0 | 82.6 | 68.2 | 74.3 | -6.1 |
| 11 | 54.0 | 81.3 | 67.4 | 86.4 | -19.0 |
| 12 | 57.3 | 83.9 | 72.1 | 67.8 | 4.3 |
| 13 | 40.1 | 69.1 | 51.5 | 35.7 | 15.8 |

Of the 281 teachers selected in the samples, 227 responded.[1/] The mean responses and corresponding standard errors for the 3 estimates for each item were calculated within each sample and these were pooled for the overall estimates (see attachment IIb). Due to the relatively small sample sizes in the Maine study, separate estimates were not made by type of teacher.

Table 2 shows that, as in the Minnesota study, the teachers' predictions came relatively close to the actual student performance. For 11 of the 15 items, the teachers' predicted outcomes fell within 15 percentage points of the actual performance; for seven, within 10 percenatges points; and for 4 within 5 percentage points of the actual student performance. In 4 cases

[1/] As in the Minnesota study, the samples were independent and there was some overlapping. After deletion of the nonrespondents, samples one, 2, and 3, contained 61, 90, and 90 teachers, respectively.

student performance fell below the teachers' minimal acceptable level of performance; and in 2 cases performance was above the teachers' desired level.

Nine of the items measured "reading for main idea and organization" (Theme 6) and 6 items measured "reading and drawing inferences" (Theme 7). Mean performance estimates were calculated for the sets of items in order to obtain criteria against which to judge overall student performance on these skills. As may be seen in table 3, the student performance for these groups of items and on the total of 15 items was close to the teachers' predicted level of performance.

As in the Minnesota study, the teacher outcomes study in Maine was followed by an opinion survey (attachment IId). A questionnaire similar to that used in Minnesota was sent to 25 teachers who had responded to the original questionnaire. The teachers reported that they understood the definitions though they felt uneasy estimating statewide performance. Generally, the teachers felt that the study was potentially useful.

The third teacher outcomes study was conducted in the Richfield Public Schools in Richfield, Minnesota. Richfield administered all Minnesota Reading Assessment items to samples of students at ages 9 and 13. Committees of teachers at each age level estimated minimal acceptable, desired, and predicted outcomes for all assessment items using consensus procedures.

The 9-year-old committee consisted of 3 third and 4 fourth grade teachers, 1 teacher from each of the 7 elementary buildings in the dis-

Table 3

Maine Teacher Outcomes Study--Theme Results

| | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| Theme 6 (9 items) | 49.5 | 76.5 | 62.4 | 63.1 | -0.7 |
| Theme 7 (6 items) | 50.0 | 77.7 | 63.1 | 65.8 | -2.7 |
| Total (15 items) | 49.7 | 77.0 | 62.7 | 64.2 | -1.5 |

trict. The 13-year-old committee consisted of 7 English teachers, 4 from 1 junior high school and 3 from the other. The committee members were given 2 days of released time from their teaching responsibilities to perform their functions as the "Teacher Outcomes Committees."

The committees met tegether for half a day for training by Research Triangle Institute, University of Minnesota, and Richfield School District staff. They were given the same definitions of minimal acceptable, desired, and predicted outcomes as were used in the statewide Minnesota and Maine studies. In addition, the teachers were given all assessment items, necessary background materials, and special booklets for recording their estimates for Richfield students. After the training session, the 2 groups began their work; each group appointed a chairperson to keep the work on schedule during the day and a half allotted for completion of the task and to list the item estimates in a master booklet. A member of the Richfield central staff was available to answer questions about definitions and process. After completion, copies of the master booklets were sent to the Research Triangle Institute for analysis.

The committee members represented a wide range of classroom situations from remedial to advanced ability groups; and, in using the consensus process, they had an opportunity to interact about student performance. As shown in table 4, more extreme estimates were obtained in the Richfield consensus study on items identical to those in the statewide Minnesota study. The Richfield predicted outcomes for these items ranged from 20 to 98, whereas the statewide estimates ranged only from 47.4 to 74.8. The differences in ranges are similar for minimal acceptable and desired outcomes.

Attachment IIIa presents the minimal acceptable, desired, and predicted outcomes with the actual Richfield student performance for all items. Of the 189 items at the 9-year-old level, the teachers' predicted level on 131 items was within 15 percentage points of the actual student performance; on 95 items performance was within 10 percentage points; and on 58 items it was within 5 percentage points of the student performance level. In 31 cases student performance was below the teachers' minimal acceptable level; and in 63 cases, it was above the mean desired level. For 138 items out of 194 at the 13-year-old level, the teachers' predicted level was within 15

Table 4

Richfield Teacher Outcomes Study
Items Overlapping the Minnesota Teacher Outcomes Study

| | Minimal Acceptable Outcome | | Desired Outcome | | Predicted Outcome | |
|---|---|---|---|---|---|---|
| Item | State | Richfield | State | Richfield | State | Richfield |
| 1A | 43.4 | 55 | 73.3 | 75 | 59.5 | 70 |
| 1B | 35.6 | 30 | 64.4 | 60 | 47.6 | 45 |
| 2A | 56.2 | 50 | 84.5 | 70 | 71.2 | 55 |
| 2B | 59.3 | 75 | 86.8 | 90 | 74.8 | 80 |
| 3A | 47.6 | 45 | 76.1 | 75 | 60.0 | 60 |
| 3B | 46.5 | 45 | 75.1 | 75 | 58.7 | 60 |
| 4A | 57.3 | 85 | 86.3 | 95 | 73.4 | 90 |
| 4B | 46.7 | 60 | 75.8 | 75 | 59.7 | 70 |
| 5A | 36.7 | 15 | 65.7 | 30 | 47.4 | 20 |
| 5B | 42.4 | 25 | 70.7 | 55 | 55.6 | 35 |
| 6A | 41.3 | 65 | 70.1 | 90 | 53.9 | 75 |
| 6B | 46.5 | 40 | 74.9 | 80 | 60.6 | 55 |
| 7A | 44.8 | 50 | 74.9 | 75 | 59.5 | 65 |
| 7B | 50.2 | 60 | 79.5 | 80 | 66.4 | 70 |
| 8A | 46.4 | 40 | 76.4 | 80 | 61.2 | 60 |
| 8B | 52.7 | 65 | 82.2 | 90 | 68.9 | 80 |
| 9 | 41.3 | 50 | 71.2 | 75 | 52.7 | 65 |
| 10A | 62.4 | 95 | 90.6 | 100 | 79.2 | 98 |
| 10B | 54.4 | 80 | 83.9 | 90 | 69.1 | 85 |
| 11 | 50.7 | 70 | 80.2 | 90 | 64.9 | 80 |
| 12 | 47.9 | 50 | 77.8 | 75 | 62.4 | 60 |
| 13 | 46.9 | 80 | 77.6 | 90 | 60.9 | 85 |

percentage points of actual student performance. For 112 items the predicted was within 10 percentage points of the actual, and for 70 items the predicted level was within 5 percentage points of student performance. Performance was below the teachers' minimal acceptable level on 35 items and above the desired level on 18 items.

The Richfield study included all items at the 9- and 13-year-old levels so that item estimates could be clustered by reading skill. The items measured 4 domains, 11 objectives, and 24 subobjectives at the 9-year-old level and 4 domains, 13 objectives, and 29 subobjectives at the 13-year-old level. Mean student performances and standard errors and mean teacher estimates of minimal acceptable, desired, and predicted outcomes for the items representing each domain, objective, and subobjective were calculated. As may be seen in attachment IIIb, from a total of 36 domains, objectives, and subobjectives at the 9-year-old level, the teachers' mean estimate of predicted performance on 30 was within 15 percentage points of the actual student performance; the predicted level on 27 was within 10 percentage points; and the predicted on 13 was within 5 percentage points of the actual. There were 7 domains, objectives, or subobjectives for which student performance fell above the teachers' desired level of performance and 3 for which student performance fell below the teachers' minimal level.

At the 13-year-old level, there were a total of 43 domains, objectives, and subobjectives. In 36 cases the teachers' mean predicted level fell within 15 percentage points of student performance; in 31 cases the predicted level was within 10 percentage points; and in 23 cases the predicted level was within 5 percentage points of student performance. There were no domains, objectives, or subobjectives for which student performance fell above the desired level; but in 6 of the 43, student performance fell below the teachers' mean estimate of a minimal acceptable level.

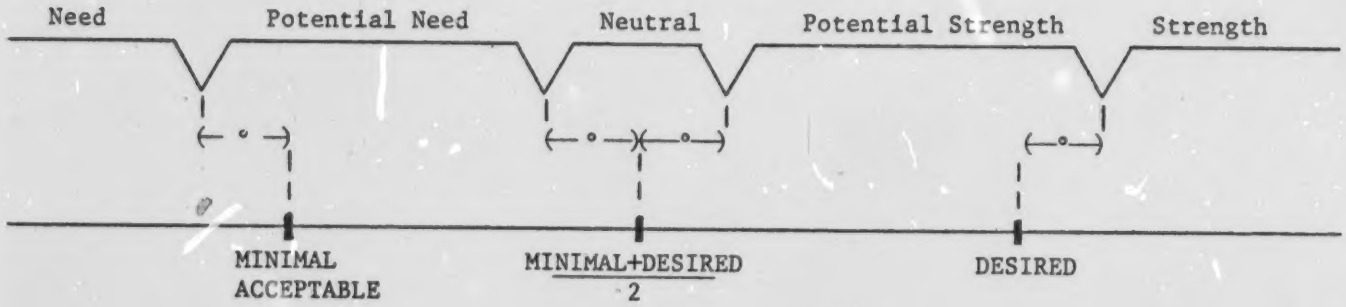
A method was devised for determining the strength or weakness of student performance in relation to the teachers' estimates of minimal and desired outcomes. The midpoint of the minimal to desired range was determined and the Richfield confidence interval was calculated.[1/] Figure 1 defines the rule for assigning classifications of "Need", "Potential Need",

[1/] The confidence interval ($\alpha = .05$) is equal to the Richfield mean performance plus and minus twice the corresponding standard error.

Figure 1

Illustration of the Classification System Used in

Defining Strengths and Needs




(—o—) = Richfield confidence interval

"Potential Strength", and "Strength" to student performance. If the confidence interval of the Richfield mean performance level included the midpoint of the Minimal to Desired range, student performance was considered to be neutral, neither a strength nor a weakness. Table 5 presents an example of each classification, taken from the 9-year-old study. Tables 6 and 7 show that this method allowed categorization of student performance across the entire range of strengths and needs.

The indications of strengths and weaknesses within the various reading skill areas will be analyzed, along with other data, by reading educators and Richfield teachers to determine changes which should be made in the reading program. The process of using classroom teachers to make the estimates focuses attention on educational objectives and student capabilities. The use of estimates established by instructional staff provides locally developed, meaningful criterion levels against which student performance can be compared.

Table 5
Examples of Classifications
9-Year-Olds

| | Performance | | | Teacher estimates | | | |
|---|---|---|---|---|---|---|---|
| | % | SE | 95%C.I. | Minimal | Midpoint | Desired | Class |
| IVC3 (3) | 62.5 | 1.60 | 59.3-65.7 | 71.7 | 79.2 | 86.7 | N |
| IVA* (11) | 57.4 | 1.60 | 54.2-60.6 | 55.5 | 66.2 | 76.8 | PN |
| IIA* (20) | 72.1 | 1.16 | 69.8-74.4 | 63.5 | 71.6 | 79.8 | - |
| IIB1 (8) | 70.5 | 1.64 | 67.2-73.8 | 48.1 | 62.2 | 76.3 | PS |
| IA6 (8) | 78.4 | 1.45 | 75.5-81.3 | 43.1 | 56.0 | 68.8 | S |

Table 6

Classification of Student Performance

9-Year-Olds

| | Need | Potential Need | Neutral | Potential Strength | Strength |
|---|---|---|---|---|---|
| Domains (4) | 0 | 0 | 1 | 2 | 1 |
| Objectives (11) | 0 | 2 | 2 | 5 | 2 |
| Subobjectives (24) | 3 | 4 | 4 | 8 | 5 |

Table 7

Classification of Student Performance

13-Year-Olds

| | Need | Potential Need | Neutral | Potential Strength | Strength |
|---|---|---|---|---|---|
| Domains (4) | 0 | 2 | 1 | 1 | 0 |
| Objectives (13) | 1 | 4 | 3 | 5 | 0 |
| Subobjectives (29) | 6 | 7 | 3 | 13 | 0 |

Attachment Ia

MINNESOTA TEACHER OUTCOMES STUDY

Excerpts from the Outcomes Booklet

MINNESOTA STATEWIDE EDUCATIONAL ASSESSMENT

TEACHER OUTCOMES BOOKLET

Place Label Here

Reading

Year 01

9-Year-Olds

February - March, 1974

Conducted By:

The Minnesota Department of Education

With The Assistance Of

The Research Triangle Institute

# INTRODUCTION

This booklet contains some of the reading items which will be administered to a sample of 9-year-old Minnesota students during this February and March. For each item, please indicate three percentages relating to Minnesota 9-year-olds. First, indicate your minimal acceptable outcome or the percent of Minnesota 9-year-olds you believe must be able to respond correctly to the item in order for you to consider that reading instruction in the state meets the most basic needs of these students. Second, indicate your desired outcome or the percent of Minnesota 9-year-olds you would like to see respond correctly to the item. Finally, please indicate your predicted outcome or the percent of Minnesota 9-year-olds you believe will actually respond to the item correctly.

Here are some questions you may have as you prepare for this task. The answers are designed to help you estimate the percentages.

1. How is a 9-year-old defined for this assessment?

> A 9-year-old is a student born during the calendar year 1964. Approximately three-fourths of them will be in the fourth grade, and approximately one-fourth of them will be in the third grade. A few may be in the second or fifth grades.

2. If I don't feel comfortable estimating state percentages, should I base my percentages upon my class or students in my school?

You should attempt to base your percents upon students throughout the state of Minnesota. The degree to which you will feel comfortable doing this will depend upon your training and experience. In practice you will have to relate to your own experiences with students. Please generalize to the state population as much as your experience will allow.

The following may help you in determining percents. Suppose 30 9-year-olds represented the total population of 9-year-olds in Minnesota. If so, the chart below would hold true:

| Number of Students | Percent of Students |
|---|---|
| 30 | 100% |
| 27 | 90% |
| 24 | 80% |
| 21 | 70% |
| 18 | 60% |
| 15 | 50% |
| 12 | 40% |
| 9 | 30% |
| 6 | 20% |
| 3 | 10% |

3. What is meant by minimal acceptable outcome?

This is the percent of Minnesota 9-year-olds you believe must be able to respond correctly to a particular reading item in order for you to consider reading instruction to be providing essential reading skills to these students. To determine the minimal acceptable outcome most people will probably consider the importance of the material being measured by the item in terms of mastering future reading skills for reading at a level necessary to operate successfully in society.

The minimal acceptable outcome might be viewed in another way. If the percent of Minnesota 9-year-olds responding correctly to the item were below this percent, you would feel very concerned about the instruction of the reading skill measured by that item.

4. What is meant by desired outcome?

This is the percent of Minnesota 9-year-olds you believe should be able to respond correctly to a particular reading item. If reading instruction were optimal for Minnesota students, this is the percent that would respond correctly to the particular exercise. To determine desired outcome, most people will probably consider the importance of the material being measure by the item as well as the difficulty of the item in terms of the general abilities of 9-year-olds.

The desired outcome might be viewed in another way. If the percent of Minnesota 9-year-olds responding correctly to the item were above this percent, you would feel rather satisfied about the instruction of the reading skill measured by that item.

5. What is meant by predicted outcome?

This is the percent of Minnesota 9-year-olds you believe will respond correctly to a particular reading item. To determine predicted outcome, most people will consider the level of reading instruction in the state, as they perceive it, along with the difficulty of the item in terms of both the general abilities of 9-year-olds and the ability of 9-year-olds to master the particular item with present reading instruction.

6. Can a predicted outcome ever be higher than a desired outcome?

Yes. For instance, you may believe present reading instruction emphasizes mastery of certain skills which are of minor importance to good reading instruction. If so, you may feel that the actual outcome will be better than your desired outcome on the particular item.

## DIRECTIONS

The next few pages contain some of the reading items which will be administered to 9-year-olds in Minnesota. Examples used to prepare the students to respond are included with each item. The tape scripts, which show what was read to the students on audio tape as they read the item to themselves, are also included. For each item, students were given an amount of time considered adequate for most students to respond without time pressure.

For each item, there is a place to indicate your estimates of the minimal acceptable outcome, desired outcome, and predicted outcome. Please place an "X" in the box representing your estimate of each percent, to the nearest 10%.

## EXAMPLE

The boxes you are to complete for each item are shown below. In this example, the estimate for the minimal acceptable outcome is 40%. If the actual outcome were below 40%, the teacher would feel very concerned about instruction of the reading skill measured by the particular item. The estimate for the desired outcome is 70%. If the actual outcome were above 70%, the teacher would feel rather satisfied about instruction of the reading skill measured by the particular item. In this example, the estimate for the predicted outcome is 60%. The teacher believes 60% of Minnesota 9-year-olds will actually respond to the particular item correctly.

| Percent | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | X | | | | | | |
| Desired | | | | | | | X | | | |
| Predicted | | | | | | X | | | | |

ITEM 1. AS PRINTED

1. In this exercise we want to find out how well you can recognize the number of syllables in a word. For each part read the underlined key word and decide how many syllables it has. Then fill in the oval next to the number of syllables in the underlined word.

| Example 1 | Example 2 |
|---|---|
| The word between has | The word medicine has |
| ○ 1 syllable.<br>● 2 syllables.<br>○ 3 syllables.<br>○ 4 syllables.<br><br>○ I don't know. | ○ 1 syllable.<br>○ 2 syllables.<br>○ 3 syllables.<br>○ 4 syllables.<br><br>○ I don't know. |

A. The word screwed has

○ 1 syllable.
○ 2 syllables.
○ 3 syllables.
○ 4 syllables.

○ I don't know.

*Indicate your estimates for 1A here:*

| Percent | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | | | | | | | |
| Desired | | | | | | | | | | |
| Predicted | | | | | | | | | | |

B. The word inaugural has

○ 1 syllable.
○ 2 syllables.
○ 3 syllables.
○ 4 syllables.

○ I don't know.

*Indicate your estimates for 1B here:*

| Percent | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | | | | | | | |
| Desired | | | | | | | | | | |
| Predicted | | | | | | | | | | |

TAPE SCRIPT FOR ITEM 1

In this exercise we want to find out how well you can recognize the number of syllables in a word. For each part, read the underlined key word and decide how many syllables it has. Then fill in the oval next to the number of syllables in the underlined word. Look at Example 1 in the box.

(Pause :05)

Notice that the oval next to two syllables has been filled in because the word between has two syllables. Now you do Example 2 in the box. Read the underlined key word and decide how many syllables it has. Fill in the oval next to the number of syllables in the underlined key word.

(Pause :10)

Did you fill in the oval next to three syllables? Three syllables is the correct answer because the word medicine has three syllables. If you did not fill in the oval next to three syllables, please do so now.

(Pause :10)

Now you do Parts A and B on your own. Remember, for each part fill in the number of syllables in the underlined word. Ready? Begin.

## ITEM 2. AS PRINTED

2. In this exercise we want to see how well you can choose a word that has the same vowel sound in the middle as the sound you hear in the middle of a word I say. You are to listen for the middle vowel sound of a key word that I say and then fill in the oval next to the word that has the same vowel sound in the middle.

| Example 1 | Example 2 |
|---|---|
| ○ sir<br>○ tide<br>● pin<br>○ tie<br><br>○ I don't know. | ○ cat<br>○ cart<br>○ map<br>○ rate<br><br>○ I don't know. |
| Notice that the oval next to "pin" has been filled in because the vowel in the middle of "pin" has the same sound as the vowel in the middle of "sit." | You should have filled in the oval next to "rate" because the vowel in the middle of "rate" has the same sound as the vowel in the middle of "cape." |

(See Tape Script for key word--"lob.")

A. ○ told
○ dot
○ for
○ toy

○ I don't know.

*Indicate your estimates for 2A here:*

| Percent | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | | | | | | | |
| Desired | | | | | | | | | | |
| Predicted | | | | | | | | | | |

(See Tape Script for key word--"might.")

B. ○ tin
○ fir
○ kit
○ bite

○ I don't know.

*Indicate your estimates for 2B here:*

| Percent | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | | | | | | | |
| Desired | | | | | | | | | | |
| Predicted | | | | | | | | | | |

## TAPE SCRIPT FOR ITEM 2

In this exercise we want to see how well you can choose a word that has the same vowel sound in the middle as the sound you hear in the middle of a word I say. You are to listen for the middle vowel sound of a key word that I say and fill in the oval next to the word that has the same vowel sound in the middle. Look at Example 1 in the box as you listen to the key word. The key word is sit (Pause) sit.

(Pause :05)

Notice that the oval next to pin has been filled in because the vowel in the middle of pin has the same sound as the vowel in the middle of sit. Now you do Example 2 in the box. Listen to the key word and then fill in the oval next to the word that has the same vowel sound in the middle as the word I say. The key word is cape (Pause) cape.

(Pause :07)

Did you fill in the oval next to rate? You should have filled in the oval next to rate because the vowel in the middle of rate has the same sound as the vowel in the middle of cape. If you did not fill in the oval next to rate, please do so now.

(Pause :10)

Now we will do Parts A and B in the same way. You listen to the key word and then fill in the oval next to the word that has the same vowel sound in the middle as the word I say. Ready?

A. The key word is lob (Pause) lob.

B. The key word is might (Pause) might.

NOTE

The additional 18 items were presented in the remainder of the booklet.

Attachment Ib

MINNESOTA TEACHER OUTCOMES STUDY

Results by Sample and Overall

## Minnesota Teacher Outcomes Study

| | | Sample 1 | | Sample 2 | | Sample 3 | | Overall | |
|---|---|---|---|---|---|---|---|---|---|
| | | % | #Ss | % | #Ss | % | #Ss | % | SE |
| 1A | Minimal | 41.4 | 237 | 43.0 | 232 | 45.9 | 263 | 43.4 | 1.32 |
| | Desired | 71.7 | 238 | 71.8 | 232 | 76.3 | 263 | 73.3 | 1.52 |
| | Predicted | 58.1 | 238 | 59.4 | 232 | 61.0 | 263 | 59.5 | 0.84 |
| 1B | Minimal | 33.6 | 239 | 34.5 | 232 | 38.6 | 262 | 35.6 | 1.54 |
| | Desired | 62.4 | 239 | 62.8 | 232 | 68.1 | 263 | 64.4 | 1.84 |
| | Predicted | 46.5 | 239 | 46.2 | 232 | 50.1 | 263 | 47.6 | 1.25 |
| 2A | Minimal | 53.2 | 238 | 57.9 | 231 | 57.4 | 260 | 56.2 | 1.49 |
| | Desired | 83.8 | 238 | 85.2 | 231 | 84.6 | 263 | 84.5 | 0.41 |
| | Predicted | 70.5 | 238 | 71.9 | 231 | 71.3 | 261 | 71.2 | 0.41 |
| 2B | Minimal | 56.6 | 238 | 61.0 | 231 | 60.4 | 262 | 59.3 | 1.38 |
| | Desired | 86.2 | 238 | 86.4 | 231 | 87.9 | 263 | 86.8 | 0.54 |
| | Predicted | 75.5 | 238 | 75.0 | 230 | 74.0 | 262 | 74.8 | 0.44 |
| 3A | Minimal | 45.0 | 237 | 48.1 | 230 | 49.6 | 261 | 47.6 | 1.35 |
| | Desired | 75.5 | 237 | 76.2 | 230 | 76.5 | 261 | 76.1 | 0.30 |
| | Predicted | 60.9 | 237 | 59.6 | 230 | 59.6 | 261 | 60.0 | 0.43 |
| 3B | Minimal | 45.7 | 237 | 46.1 | 229 | 47.7 | 260 | 46.5 | 0.61 |
| | Desired | 75.0 | 237 | 75.5 | 229 | 74.7 | 260 | 75.1 | 0.23 |
| | Predicted | 60.0 | 237 | 58.4 | 229 | 57.8 | 260 | 58.7 | 0.66 |
| 4A | Minimal | 53.7 | 239 | 57.2 | 231 | 61.0 | 262 | 57.3 | 2.11 |
| | Desired | 84.8 | 239 | 86.5 | 231 | 87.6 | 262 | 86.3 | 0.81 |
| | Predicted | 72.4 | 239 | 73.4 | 231 | 74.5 | 262 | 73.4 | 0.61 |

| | | Sample 1 | | Sample 2 | | Sample 3 | | Overall | |
|---|---|---|---|---|---|---|---|---|---|
| | | % | #Ss | % | #Ss | % | #Ss | % | SE |
| 4B | Minimal | 43.5 | 239 | 46.8 | 232 | 49.8 | 262 | 46.7 | 1.82 |
| | Desired | 74.3 | 239 | 76.1 | 232 | 76.9 | 262 | 75.8 | 0.77 |
| | Predicted | 59.1 | 239 | 59.4 | 231 | 60.6 | 261 | 59.7 | 0.46 |
| 5A | Minimal | 34.3 | 238 | 36.3 | 232 | 39.5 | 263 | 36.7 | 1.52 |
| | Desired | 64.3 | 237 | 65.4 | 232 | 67.5 | 262 | 65.7 | 0.94 |
| | Predicted | 47.3 | 237 | 46.1 | 232 | 48.7 | 262 | 47.4 | 0.75 |
| 5B | Minimal | 40.3 | 239 | 42.3 | 233 | 44.7 | 263 | 42.4 | 1.27 |
| | Desired | 69.8 | 239 | 70.9 | 233 | 71.5 | 264 | 70.7 | 0.50 |
| | Predicted | 54.2 | 239 | 55.9 | 233 | 56.7 | 262 | 55.6 | 0.74 |
| 6A | Minimal | 38.8 | 239 | 39.6 | 233 | 45.4 | 264 | 41.3 | 2.08 |
| | Desired | 69.1 | 239 | 68.5 | 233 | 72.6 | 264 | 70.1 | 1.28 |
| | Predicted | 52.8 | 237 | 53.3 | 232 | 55.6 | 263 | 53.9 | 0.86 |
| 6B | Minimal | 44.0 | 239 | 45.7 | 233 | 49.7 | 264 | 46.5 | 1.69 |
| | Desired | 73.7 | 239 | 74.4 | 233 | 76.6 | 264 | 74.9 | 0.87 |
| | Predicted | 59.5 | 239 | 60.5 | 233 | 61.8 | 264 | 60.6 | 0.67 |
| 7A | Minimal | 42.1 | 239 | 44.3 | 233 | 48.1 | 264 | 44.8 | 1.75 |
| | Desired | 74.7 | 239 | 73.6 | 233 | 76.5 | 264 | 74.9 | 0.85 |
| | Predicted | 58.7 | 239 | 58.4 | 233 | 61.5 | 264 | 59.5 | 0.99 |
| 7B | Minimal | 47.7 | 239 | 50.6 | 233 | 52.4 | 264 | 50.2 | 1.37 |
| | Desired | 79.1 | 239 | 79.8 | 233 | 79.5 | 264 | 79.5 | 0.20 |
| | Predicted | 65.7 | 239 | 67.6 | 233 | 65.8 | 264 | 66.4 | 0.62 |

| | | Sample 1 | | Sample 2 | | Sample 3 | | Overall | |
|---|---|---|---|---|---|---|---|---|---|
| | | % | #Ss | % | #Ss | % | #Ss | % | SE |
| 8A | Minimal | 44.5 | 238 | 46.3 | 233 | 48.3 | 263 | 46.4 | 1.10 |
| | Desired | 76.5 | 237 | 75.6 | 233 | 77.2 | 264 | 76.4 | 0.46 |
| | Predicted | 61.3 | 237 | 60.5 | 233 | 61.9 | 264 | 61.2 | 0.41 |
| 8B | Minimal | 50.4 | 238 | 53.8 | 233 | 53.9 | 263 | 52.7 | 1.15 |
| | Desired | 82.0 | 238 | 83.4 | 233 | 81.2 | 264 | 82.2 | 0.64 |
| | Predicted | 67.9 | 238 | 71.5 | 233 | 67.2 | 264 | 68.9 | 1.33 |
| 9 | Minimal | 38.2 | 236 | 40.9 | 232 | 44.9 | 261 | 41.3 | 1.95 |
| | Desired | 70.3 | 236 | 71.4 | 232 | 71.8 | 262 | 71.2 | 0.45 |
| | Predicted | 50.9 | 236 | 54.0 | 232 | 53.2 | 262 | 52.7 | 0.93 |
| 10A | Minimal | 60.2 | 238 | 63.7 | 232 | 63.2 | 264 | 62.4 | 1.09 |
| | Desired | 90.4 | 238 | 92.3 | 232 | 89.0 | 264 | 90.6 | 0.96 |
| | Predicted | 78.3 | 238 | 81.0 | 231 | 78.2 | 264 | 79.2 | 0.92 |
| 10B | Minimal | 52.0 | 238 | 54.9 | 231 | 56.2 | 263 | 54.4 | 1.24 |
| | Desired | 83.8 | 238 | 84.9 | 231 | 83.0 | 263 | 83.9 | 0.55 |
| | Predicted | 68.9 | 238 | 69.3 | 232 | 69.1 | 263 | 69.1 | 0.11 |
| 11 | Minimal | 47.8 | 239 | 51.9 | 233 | 52.3 | 263 | 50.7 | 1.44 |
| | Desired | 78.8 | 239 | 82.9 | 233 | 79.0 | 263 | 80.2 | 1.33 |
| | Predicted | 62.4 | 239 | 67.0 | 233 | 65.4 | 261 | 64.9 | 1.35 |
| 12 | Minimal | 44.9 | 239 | 48.1 | 233 | 50.8 | 264 | 47.9 | 1.71 |
| | Desired | 76.5 | 239 | 76.6 | 233 | 80.4 | 264 | 77.8 | 1.28 |
| | Predicted | 61.1 | 239 | 61.8 | 233 | 64.3 | 264 | 62.4 | 0.97 |
| 13 | Minimal | 44.4 | 239 | 49.3 | 233 | 47.1 | 263 | 46.9 | 1.42 |
| | Desired | 76.5 | 239 | 79.8 | 233 | 76.4 | 264 | 77.6 | 1.12 |
| | Predicted | 60.3 | 239 | 63.0 | 233 | 59.5 | 264 | 60.9 | 1.06 |

Attachment Ic

MINNESOTA TEACHER OUTCOMES STUDY

Overall Estimates by Type of Teacher
with Actual Student Performance

## Minnesota Teacher Outcomes Study

| Teacher Outcomes Booklet Item Number | | Overall | | 3rd Grade Classroom Teachers | | 4th Grade Classroom Teachers | | Special Teachers (3rd and 4th) | | Special Teachers (Elementary) | | Student Performance | | | | Student Booklet | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE | Pkg. 1 | Pkg. 2 | Pkg. 3 | (Reported) Overall | Pkg. # | Exercise # |
| 1A | Minimal | 43.4 | 1.32 | 41.6 | 1.51 | 45.2 | 0.78 | 42.5 | 6.91 | 40.4 | 2.12 | | | | | | |
| | Desired | 73.3 | 1.52 | 72.1 | 1.40 | 75.1 | 1.81 | 69.7 | 5.33 | 72.3 | 2.34 | | | | | | |
| | Predicted | 59.5 | 0.84 | 58.0 | 1.52 | 62.0 | 0.80 | 55.4 | 5.12 | 57.0 | 2.75 | — | — | 50.29 | 50.29 | 3 | 11A |
| 1B | Minimal | 35.6 | 1.54 | 34.4 | 2.24 | 36.7 | 0.88 | 34.7 | 5.64 | 33.9 | 2.04 | | | | | | |
| | Desired | 64.4 | 1.84 | 63.2 | 2.52 | 65.6 | 1.58 | 63.0 | 5.29 | 64.2 | 4.23 | | | | | | |
| | Predicted | 47.6 | 1.25 | 45.5 | 1.82 | 49.2 | 1.04 | 45.7 | 4.35 | 47.3 | 2.718 | — | — | 57.75 | 57.75 | 3 | 11B |
| 2A | Minimal | 56.2 | 1.49 | 54.1 | 0.88 | 57.4 | 1.52 | 60.1 | 5.34 | 53.4 | 0.65 | | | | | | |
| | Desired | 84.5 | 0.41 | 84.1 | 0.48 | 85.4 | 1.20 | 83.9 | 1.80 | 84.8 | 0.93 | | | | | | |
| | Predicted | 71.2 | 0.41 | 70.0 | 0.43 | 73.1 | 0.52 | 72.8 | 1.53 | 68.5 | 1.47 | — | — | 79.66 | 79.66 | 3 | 2B |
| 2B | Minimal | 59.3 | 1.38 | 57.1 | 1.05 | 60.5 | 1.24 | 63.1 | 4.92 | 57.3 | 1.30 | | | | | | |
| | Desired | 86.8 | 0.54 | 86.2 | 0.70 | 88.4 | 0.38 | 85.5 | 2.65 | 85.5 | 1.87 | | | | | | |
| | Predicted | 74.8 | 0.44 | 73.7 | 1.25 | 76.8 | 0.79 | 77.7 | 1.01 | 69.9 | 1.90 | — | — | 90.40 | 90.40 | 3 | 2F |
| 3A | Minimal | 47.6 | 1.35 | 46.8 | 1.11 | 47.1 | 0.95 | 51.1 | 6.27 | 45.6 | 0.76 | | | | | | |
| | Desired | 76.1 | 0.30 | 75.1 | 1.07 | 76.5 | 0.41 | 77.1 | 3.87 | 75.4 | 1.23 | | | | | | |
| | Predicted | 60.0 | 0.43 | 59.5 | 1.85 | 60.2 | 0.90 | 60.9 | 1.77 | 58.8 | 1.56 | — | — | 73.90 | 73.90 | 3 | 9B |
| 3B | Minimal | 46.5 | 0.61 | 44.8 | 0.89 | 46.7 | 0.88 | 49.8 | 5.94 | 45.1 | 1.36 | | | | | | |
| | Desired | 75.1 | 0.23 | 74.2 | 1.37 | 75.2 | 0.23 | 77.3 | 2.76 | 74.3 | 1.25 | | | | | | |
| | Predicted | 58.7 | 0.66 | 58.4 | 1.53 | 58.8 | 1.55 | 59.8 | 2.54 | 56.7 | 2.88 | — | — | 52.80 | 52.80 | 3 | 9C |

| Teacher Outcomes Booklet Item Number | | Overall | | 3rd Grade Classroom Teachers | | 4th Grade Classroom Teachers | | Special Teachers (3rd and 4th) | | Special Teachers (Elementary) | | Student Performance | | | | Student Booklet | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Pkg. 1 | Pkg. 2 | Pkg. 3 | (Reported) Overall | Pkg. # | Exercise # |
| 4A | Minimal | 57.3 | 2.11 | 56.0 | 2.49 | 58.9 | 1.56 | 57.5 | 7.04 | 55.5 | 0.81 | | | | | | |
| | Desired | 86.3 | 0.81 | 86.6 | 0.32 | 87.4 | 0.50 | 85.0 | 2.12 | 84.1 | 2.53 | | | | | | |
| | Predicted | 73.4 | 0.81 | 73.0 | 0.70 | 75.5 | 0.05 | 71.9 | 2.54 | 69.9 | 2.68 | -- | 87.09 | -- | 87.09 | 2 | 5B |
| 4B | Minimal | 46.7 | 1.82 | 45.2 | 2.19 | 47.1 | 0.84 | 49.2 | 7.55 | 45.7 | 2.17 | | | | | | |
| | Desired | 75.8 | 0.77 | 75.5 | 0.77 | 75.8 | 0.48 | 76.2 | 3.98 | 75.1 | 2.23 | | | | | | |
| | Predicted | 59.7 | 0.46 | 59.5 | 1.22 | 60.0 | 0.71 | 59.6 | 3.45 | 58.5 | 2.88 | -- | 74.17 | -- | 74.17 | 2 | 5E |
| 5A | Minimal | 36.7 | 1.52 | 34.6 | 1.77 | 36.5 | 1.22 | 39.4 | 7.27 | 37.4 | 0.52 | | | | | | |
| | Desired | 65.7 | 0.94 | 62.5 | 1.63 | 66.6 | 0.17 | 66.8 | 5.08 | 68.8 | 2.62 | | | | | | |
| | Predicted | 47.4 | 0.75 | 44.5 | 1.89 | 48.0 | 0.95 | 48.2 | 1.24 | 49.8 | 2.25 | 36.96 | -- | -- | 36.96 | 1 | 6A |
| 5B | Minimal | 42.4 | 1.27 | 38.5 | 1.34 | 43.5 | 0.56 | 45.8 | 7.37 | 43.1 | 1.11 | | | | | | |
| | Desired | 70.7 | 0.50 | 66.9 | 1.25 | 72.3 | 0.83 | 71.5 | 3.33 | 73.4 | 2.41 | | | | | | |
| | Predicted | 55.6 | 0.74 | 52.0 | 1.08 | 56.8 | 0.39 | 58.9 | 1.56 | 56.5 | 3.05 | 58.37 | -- | -- | 58.37 | 1 | 6B |
| 6A | Minimal | 41.3 | 2.08 | 38.4 | 2.48 | 41.4 | 2.03 | 45.1 | 6.92 | 41.6 | 2.00 | | | | | 1 | 4A |
| | Desired | 70.1 | 1.28 | 66.9 | 1.25 | 71.1 | 1.32 | 72.1 | 4.28 | 70.3 | 2.74 | | | | | 2 | 4A |
| | Predicted | 53.9 | 0.86 | 50.9 | 1.24 | 54.9 | 0.92 | 55.9 | 2.51 | 53.9 | 3.48 | 60.75 | 61.68 | 62.59 | 60.75 | 3 | 4A |
| 6B | Minimal | 46.5 | 1.69 | 43.8 | 1.94 | 47.2 | 0.90 | 50.4 | 7.56 | 44.7 | 2.06 | | | | | 1 | 4B |
| | Desired | 74.9 | 0.87 | 71.9 | 0.90 | 76.9 | 1.15 | 76.5 | 4.33 | 73.9 | 2.92 | | | | | 2 | 4B |
| | Predicted | 60.6 | 0.67 | 57.7 | 0.81 | 62.4 | 0.72 | 63.8 | 2.02 | 58.2 | 4.38 | 78.87 | 80.91 | 80.53 | 78.87 | 3 | 4B |

| Teacher Outcomes Booklet Item Number | | Overall | | 3rd Grade Classroom Teachers | | 4th Grade Classroom Teachers | | Special Teachers (3rd and 4th) | | Special Teachers (Elementary) | | Student Performance | | | | Student Booklet | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Pkg. 1 | Pkg. 2 | Pkg. 3 | (Reported) Overall | Pkg. # | Exercise # |
| 7A | Minimal | 44.8 | 1.75 | 42.1 | 2.31 | 45.5 | 1.03 | 47.8 | 6.47 | 44.4 | 2.24 | | | | | 1 | 8A |
| | Desired | 74.9 | 0.85 | 72.0 | 1.62 | 76.8 | 1.56 | 74.6 | 4.28 | 75.6 | 2.92 | | | | | 2 | 8A |
| | Predicted | 59.5 | 0.99 | 56.9 | 2.31 | 61.6 | 1.18 | 61.0 | 2.02 | 57.7 | 4.94 | 76.21 | 75.90 | 75.71 | 76.21 | 3 | 8A |
| 7B | Minimal | 50.2 | 1.37 | 46.8 | 1.26 | 51.3 | 0.30 | 53.4 | 6.36 | 48.8 | 1.81 | | | | | 1 | 8C |
| | Desired | 79.5 | 0.20 | 76.1 | 1.51 | 82.6 | 1.01 | 78.3 | 3.33 | 78.5 | 1.84 | | | | | 2 | 8C |
| | Predicted | 66.4 | 0.62 | 63.5 | 0.95 | 69.1 | 1.36 | 65.8 | 1.66 | 63.8 | 3.15 | 71.00 | 71.34 | 71.07 | 71.00 | 3 | 8C |
| 8A | Minimal | 46.4 | 1.10 | 44.5 | 1.22 | 47.0 | 0.20 | 48.8 | 6.57 | 44.5 | 1.07 | | | | | 1 | 1A |
| | Desired | 76.4 | 0.46 | 74.7 | 1.67 | 78.2 | 0.46 | 75.4 | 3.40 | 75.3 | 1.85 | | | | | 2 | 1A |
| | Predicted | 61.2 | 0.41 | 59.8 | 1.50 | 63.1 | 0.80 | 61.6 | 3.09 | 57.0 | 2.89 | 73.24 | 72.34 | 73.26 | 73.24 | 3 | 1A |
| 8B | Minimal | 52.7 | 1.15 | 49.9 | 1.05 | 54.9 | 1.32 | 53.7 | 5.65 | 52.4 | 2.52 | | | | | 1 | 1B |
| | Desired | 82.2 | 0.64 | 79.9 | 1.43 | 85.3 | 1.50 | 81.1 | 2.87 | 68.3 | 9.66 | | | | | 2 | 1B |
| | Predicted | 68.9 | 1.33 | 67.0 | 1.22 | 72.0 | 2.21 | 67.8 | 3.37 | 70.6 | 7.20 | 76.35 | 78.73 | 76.72 | 76.35 | 3 | 1B |
| 9 | Minimal | 41.3 | 1.95 | 39.0 | 2.26 | 41.1 | 1.73 | 48.0 | 6.53 | 47.1 | 8.12 | | | | | | |
| | Desired | 71.2 | 0.45 | 69.3 | 0.96 | 71.5 | 0.60 | 74.3 | 2.50 | 61.2 | 11.39 | | | | | | |
| | Predicted | 52.7 | 0.93 | 50.7 | 1.57 | 53.2 | 0.27 | 56.5 | 1.04 | 58.9 | 6.82 | 33.55 | — | — | 33.55 | 1 | 11F |
| 10A | Minimal | 62.4 | 1.09 | 61.6 | 1.37 | 64.4 | 0.52 | 61.7 | 8.17 | 54.8 | 4.77 | | | | | | |
| | Desired | 90.6 | 0.96 | 91.0 | 0.95 | 91.6 | 0.92 | 88.7 | 3.94 | 77.5 | 12.10 | | | | | | |
| | Predicted | 79.2 | 0.92 | 79.6 | 0.69 | 81.0 | 0.91 | 78.3 | 3.66 | 78.5 | 5.43 | — | 87.82 | — | 87.82 | 2 | 13D |

| Teacher Outcomes Booklet Item Number | | Overall | | 3rd Grade Classroom Teachers | | 4th Grade Classroom Teachers | | Special Teachers (3rd and 4th) | | Special Teachers (Elementary) | | Student Performance | | | | Student Booklet | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Pkg. 1 | Pkg. 2 | Pkg. 3 | (Reported) Overall | Pkg. # | Exercise # |
| 10B | Minimal | 54.4 | 1.24 | 53.0 | 1.93 | 56.0 | 0.19 | 54.6 | 7.60 | 50.6 | 2.96 | | | | | | |
| | Desired | 83.9 | 0.55 | 84.0 | 0.91 | 85.4 | 0.74 | 81.1 | 3.84 | 82.1 | 2.81 | | | | | | |
| | Predicted | 69.1 | 0.11 | 69.5 | 1.59 | 71.0 | 0.45 | 67.7 | 2.70 | 64.0 | 3.67 | — | 90.43 | — | 90.43 | 2 | 13B |
| 11 | Minimal | 50.7 | 1.44 | 50.1 | 1.78 | 52.0 | 1.24 | 53.2 | 6.87 | 44.9 | 2.58 | | | | | | |
| | Desired | 80.2 | 1.33 | 80.3 | 0.70 | 81.3 | 2.00 | 78.9 | 4.83 | 77.6 | 3.80 | | | | | | |
| | Predicted | 64.9 | 1.35 | 65.2 | 0.42 | 67.0 | 1.26 | 64.3 | 4.55 | 57.7 | 5.43 | — | — | 77.42 | 77.42 | 3 | 5A |
| 12 | Minimal | 47.9 | 1.71 | 46.7 | 0.66 | 48.6 | 1.59 | 49.1 | 6.37 | 45.8 | 2.40 | | | | | | |
| | Desired | 77.8 | 1.28 | 77.2 | 1.81 | 78.9 | 1.40 | 76.8 | 3.98 | 76.9 | 2.56 | | | | | | |
| | Predicted | 62.4 | 0.97 | 61.9 | 1.18 | 64.3 | 1.77 | 61.1 | 2.62 | 57.9 | 3.94 | 68.64 | — | — | 68.64 | 1 | 3 |
| 13 | Minimal | 46.9 | 1.42 | 44.6 | 1.65 | 48.3 | 0.92 | 46.8 | 7.31 | 47.1 | 3.32 | | | | | | |
| | Desired | 77.6 | 1.12 | 75.7 | 0.69 | 78.6 | 1.35 | 76.0 | 5.62 | 79.3 | 4.17 | | | | | | |
| | Predicted | 60.9 | 1.06 | 59.5 | 0.88 | 62.6 | 1.62 | 59.3 | 4.13 | 59.5 | 6.35 | — | 59.86 | — | 59.86 | 2 | 16 |

Attachment Id

MINNESOTA TEACHER OUTCOMES STUDY

Opinion Survey

Thirty teachers were selected from all teachers who had completed the original booklet, based on the approximate frequencies of each type of special and regular classroom teacher. The teachers selected were of the following types:

| | |
|---|---|
| Remedial Reading | 2 teachers |
| SLBP | 3 teachers |
| Title I | 2 teachers |
| Reading Resource | 1 teacher |
| Supplementary Reading | 1 teacher |
| SLD Reading Program | 1 teacher |
| Classroom Teachers - 3rd Grade | 10 teachers |
| Classroom Teachers - 3rd/4th Grade | 1 teacher |
| Classroom Teachers - 4th Grade | 9 teachers |

Each teacher was mailed a short letter signed by John Adams, the questionnaire (see Attachment A), the Teacher Outcomes Booklet, the original cover letters, and a return envelope. They were asked to complete the questionnaire as soon as possible and return it to RTI. No identification code was included.

State of Minnesota

Department of Education
Capitol Square, 550 Cedar Street
St. Paul, Minnesota 55101

Dear Teacher:

In February of this year, you completed a Teacher Outcomes Booklet in connection with the Minnesota Statewide Educational Assessment Program. This is the first time this instrument has been administered, and we are now trying to assess its value and to determine ways in which it can be improved.

I would appreciate your answering the attached questionnaire and returning it in the self-addressed envelope as soon as possible. A copy of the booklet and cover materials are enclosed for your reference. Please return them with the questionnaire.

Your name will not be associated with your responses--it appears only on the envelope in which you received this letter.

If you have any questions, please feel free to contact:

Ms. Muriel Elliott
Research Triangle Institute
Research Triangle Park, North Carolina 27709
(919) 549-8311

We appreciate your continued cooperation with this project.

Sincerely,

John W. Adams, Director
State Educational Assessment

JWA:jb

Enclosures: 1) Teacher Questionnaire
2) Teacher Outcomes Booklet
3) Original cover letters

MINNESOTA STATEWIDE EDUCATIONAL ASSESSMENT PROGRAM

TEACHER QUESTIONNAIRE

Teacher Outcomes Booklet

A. How many undergraduate courses did you take in reading?

_____

B. How many in-service reading courses or reading workshops have you attended?

_____

C. (If applicable) How many graduate courses have you taken in reading?

_____

D. What teaching experience have you had?

☐ First Year of Teaching

☐ 1 - 3 Years of Teaching

☐ 4+ Years of Teaching

There are some questions about the Teacher Outcomes Booklet below. We would appreciate any comments which you wish to make on any of the questions or on areas which you feel are not covered.

1. Did you find the format of the Teacher Outcomes Booklet easy to follow?

☐ Yes ☐ No

Comments: _____

_____

_____

2. Approximately how long did it take you to complete the booklet?

_____

3. Did you understand the definitions of the following?

"Minimal Acceptable Outcome" ☐ Yes ☐ No

"Desired Outcome" ☐ Yes ☐ No

"Predicted Outcome" ☐ Yes ☐ No

Comments: _____

_____

_____

4. Did you feel comfortable making judgments about statewide performance?

☐ Yes ☐ No

Comments: _____

_____

_____

5. Please rate how useful you think these results can be when compared to the performance results for Minnesota 9-year-olds.

☐ Very Useful ☐ Somewhat Useful ☐ Useless

Comments: _____

_____

_____

6. If you have any additional thoughts about the Teacher Outcomes Booklet, please comment on them below.

_____

_____

_____

_____

Results From:

MINNESOTA STATEWIDE EDUCATIONAL ASSESSMENT PROGRAM

TEACHER QUESTIONNAIRE

Teacher Outcomes Booklet

A. How many undergraduate courses did you take in reading?

| Category | Frequency |
|---|---|
| 0 | 1 |
| 1 | 5 |
| 2 | 9 |
| 3 | 5 |
| 4 | 2 |
| 5 | 1 |
| ? | 1 |

B. How many in-service reading courses or reading workshops have you attended?

| Category | Frequency |
|---|---|
| 0 | 8 |
| 1 | 4 |
| 2 | 1 |
| 4 | 2 |
| 5 | 2 |
| 6 - 8 | 1 |
| 8 | 1 |
| 10 | 1 |
| 12 | 1 |
| 18 | 1 |
| 20 | 1 |
| ? | 1 |

C. (If applicable) How many graduate courses have you taken in reading?

| Category | Frequency |
|---|---|
| 0 | 6 |
| 1 | 4 |
| 2 | 6 |
| 3 | 1 |
| 4 | 1 |
| 6 | 2 |
| "Some" | 1 |
| ? | 3 |

D. What teaching experience have you had?

| Category | Frequency |
|---|---|
| 1 | 1 |
| 1 - 3 | 5 |
| 4+ | 18 |

1. Did you find the format of the Teacher Outcomes Booklet easy to follow?

22 ☐ Yes  1 ☐ No  1 ☐ Somewhat

No..."I found it to be confusing."

Yes.."Minimal and predictable outcomes may vary among teachers, and they may change depending on pupils."

"I was confused as to the criteria we were to use. Gates Reading tests or basic texts (they vary in difficulty)."

"But I feel that I had to do too much guessing on the answers."

2. Approximately how long did it take you to complete the booklet?

| Category | Frequency |
|---|---|
| 1/2 | 2 |
| 1/2+ | 1 |
| 1/2 - 3/4 | 4 |
| 3/4 | 3 |
| 1 | 7 |
| 1 1/2 | 2 |
| 2 | 3 |
| ? | 2 |

3. Did you understand the definitions of the following?

"Minimal Acceptable Outcome" ☐ Yes ☐ No

"Desired Outcome" ☐ Yes ☐ No

"Predicted Outcome" ☐ Yes ☐ No

| Category | Frequency |
|---|---|
| yes-yes-yes | 22 |
| yes-no-yes | 1 |
| NR | 1 |

No..."The desired outcome is a very vague judgment to make."

Yes (to all three)

"I have been in this school 20 years and 7 years in schools nearby, so can't judge statewide performances. This is a rural underprivileged area." (This answer was repeated for Q. 4.)

"I understand what I expect but I don't know how that compares with others."

"I understood the definitions, but found them confusing to work with."

"Terminology could have been simplified."

"Easily defined by example."

"I understood the definitions, but found making these judgments difficult."

"I had to refer to the definitions constantly, however."

4. Did you feel comfortable making judgments about statewide performance?

4 ☐ Yes 20 ☐ No

The backgrounds of the three teachers who responded "yes" are:

| Undergrad Courses | Workshops | Grad Courses | Years Teaching | |
|---|---|---|---|---|
| 3 | 4 | 2 | 4+ | |
| 2 | 20 | 6 | 4+(27) | comment |
| 4 | 8 | 2 | 4+ | comment |
| 0 | 0 | ? | 4+(14) | |

No..."I feel it's unfair to generalize statewide. These judgments would vary according to your community."

"I wondered if I underestimated--however, I feel these questions would be quite difficult for 9-year-old children to answer correctly."

"For my own particular classroom, there would be more accuracy. Some of the state's schools do not require so much as others do!"

"I have worked with first and second graders in the classroom and small groups in a tutor position. I did not feel qualified to make judgments on 9 year olds."

"I did not feel qualified to make these judgments."

"It depends so much on the home environment. I find it varies even from year to year."

"By only living in the state for 1 1/2 years, it was difficult for me to make judgments."

"I feel these are so nebulous hard to be definite."

Yes.."Have taught in various sections of Minnesota, so I feel that through these experiences I can judge 9 year old performance relatively well."

"After 27 years of experience with a Master's Degree in Reading, I do feel comfortable making judgments."

5. Please rate how useful you think these results can be when compared to the performance results for Minnesota 9-year-olds.

7 ☐ Very Useful  17 ☐ Somewhat Useful  0 ☐ Useless

Somewhat Useful

"I'm not sure what the results are going to be used for."

"When a person working daily with these children completes the booklet----." (dash was on the paper)

"Because my fellow third-grade teachers and I were in agreement that we did a lot of guessing, I'm dubious."

"Though I have no idea how."

Very Useful

"They can be very useful--depends on how accurate my estimations are and if and how they are used."

"If used with the attitude that each child is an individual and has day to day variation in learning."

6. If you have any additional thoughts about the Teacher Outcomes Booklet, please comment on them below.

Although almost all of the teachers found the format easy to follow and the definitions easy to understand, very few (3) felt comfortable estimating statewide performance.

"I tried to do my best but when I had finished I felt that my estimates were probably quite inaccurate."

"I thought Item 3 was quite difficult for the average student."

"Large variance between small schools, small class enrollments with lots of independent help compared with "open" classrooms, large classrooms, inner-city classes. It's hard to compare all types."

"I think the reading series used in each school will cause a variation in outcomes on a test like this."

"The test itself seems too wordy--too much reading to do for a fourth grade child. Also, many children at the time of the test were already 10 years old. The nine year olds tested were often the more immature children."

"I feel we have to take many factors into consideration when we judge abilities of human beings. It will give us a feeling of achievement when our particular school does well but it can also have the opposite affect."

"I am eager to see the results of teacher 'judgment compared to actual 9 year old' performance."

"Some of the items seemed too involved for 9 year olds. I have the feeling that either the selections were quite easy or they were rather complicated or confusing as stated (e.g. p. 14). I thought that the booklet was well done and I was curious as to the source of the selections."

"Probably a waste of time and money."

"I believe this would be more valid if it were completed by those working with 9 year olds."

"I believe I did a lot of guessing. Therefore, when I completed the booklet, I had a feeling of guilt. I like to be 'certain' about my answers."

"I would think this might be more useful when just based on your local school district or area."

Attachment IIa

MAINE TEACHER OUTCOMES STUDY

Excerpts from the Outcomes Booklet

MAINE ASSESSMENT OF EDUCATIONAL PROGRESS

TEACHER OUTCOMES STUDY BOOKLET

Place Label Here

Reading

Year 03

9-Year-Olds

March, 1974

Conducted By:

The Maine Department of Educational and Cultural Services

With The Assistance Of

The Research Triangle Institute

# INTRODUCTION

This booklet contains some of the reading items which are being administered to a sample of 9-year-old Maine students during March. For each item, please indicate three percentages relating to Maine 9-year-olds. First, indicate your minimal acceptable outcome or the percent of Maine 9-year-olds you believe must be able to respond correctly to the item in order for you to consider that reading instruction in the state meets the most basic needs of these students. Second, indicate your desired outcome or the percent of Maine 9-year-olds you would like to see respond correctly to the item. Finally, please indicate your predicted outcome or the percent of Maine 9-year-olds you believe will actually respond to the item correctly.

Here are some questions you may have as you prepare for this task. The answers are designed to help you estimate the percentages.

1. How is a 9-year-old defined for this assessment?

> A 9-year-old is a student born during the calendar year 1964. Approximately three-fourths of them will be in the fourth grade, and approximately one-fourth of them will be in the third grade. A few may be in the second or fifth grades.

2. If I don't feel comfortable estimating state percentages, should I base my percentages upon my class or students in my school?

You should attempt to base your percents upon students throughout the state of Maine. The degree to which you will feel comfortable doing this will depend upon your training and experience. In practice you will have to relate to your own experiences with students. Please generalize to the state population as much as your experience will allow.

The following may help you in determining percents. Suppose 30 9-year-olds represented the total population of 9-year-olds in Maine. If so, the chart below would hold true:

| Number of Students | Percent of Students |
|---|---|
| 30 | 100% |
| 27 | 90% |
| 24 | 80% |
| 21 | 70% |
| 18 | 60% |
| 15 | 50% |
| 12 | 40% |
| 9 | 30% |
| 6 | 20% |
| 3 | 10% |

3. What is meant by minimal acceptable outcome?

This is the percent of Maine 9-year-olds you believe must be able to respond correctly to a particular reading item in order for you to consider reading instruction to be providing essential reading skills to these students. To determine the minimal acceptable outcome most people will probably consider the importance of the material being measured by the item in terms of mastering future reading skills for reading at a level necessary to operate successfully in society.

The minimal acceptable outcome might be viewed in another way. If the percent of Maine 9-year-olds responding correctly to the item were below this percent, you would feel very concerned about the instruction of the reading skill measured by that item.

4. What is meant by desired outcome?

This is the percent of Maine 9-year-olds you believe should be able to respond correctly to a particular reading item. If reading instruction were optimal for Maine students, this is the percent that would respond correctly to the particular exercise. To determine desired outcome, most people will probably consider the importance of the material being measured by the item as well as the difficulty of the item in terms of the general abilities of 9-year-olds.

The desired outcome might be viewed in another way. If the percent of Maine 9-year-olds responding correctly to the item were above this percent, you would feel rather satisfied about the instruction of the reading skill measured by that item.

5. What is meant by predicted outcome?

This is the percent of Maine 9-year-olds you believe will respond correctly to a particular reading item. To determine predicted outcome, most people will consider the level of reading instruction in the state, as they perceive it, along with the difficulty of the item in terms of both the general abilities of 9-year-olds and the ability of 9-year-olds to master the particular item with present reading instruction.

6. Can a predicted outcome ever be higher than a desired outcome?

Yes. For instance, you may believe present reading instruction emphasizes mastery of certain skills which are of minor importance to good reading instruction. If so, you may feel that the actual outcome will be better than your desired outcome on the particular item.

## DIRECTIONS

The next few pages contain some of the reading items which will be administered to 9-year-olds in Minnesota. Examples used to prepare the students to respond are included with each item. The tape scripts, which show what was read to the students on audio tape as they read the item to themselves, are also included. For each item, students were given an amount of time considered adequate for most students to respond without time pressure.

For each item, there is a place to indicate your estimates of the minimal acceptable outcome, desired outcome, and predicted outcome. Please place an "X" in the box representing your estimate of each percent, to the nearest 10%.

## EXAMPLE

The boxes you are to complete for each item are shown below. In this example, the estimate for the minimal acceptable outcome is 40%. If the actual outcome were below 40%, the teacher would feel very concerned about instruction of the reading skill measured by the particular item. The estimate for the desired outcome is 70%. If the actual outcome were above 70%, the teacher would feel rather satisfied about instruction of the reading skill measured by the particular item. In this example, the estimate for the predicted outcome is 60%. The teacher believes 60% of Minnesota 9-year-olds will actually respond to the particular item correctly.

| Percent | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | X | | | | | | |
| Desired | | | | | | | X | | | |
| Predicted | | | | | | X | | | | |

ITEM 1 AS PRINTED

1. Read the two stories and answer the question which follows them.

Story 1

A handsome prince was riding his horse in the woods. He saw a dragon chasing a beautiful princess. The prince killed the dragon. The prince and the princess were then married.

Story 2

Mary was taking a boat ride on a lake. The boat tipped over. Mary was about to drown when a young man jumped in the lake and saved her.

If Story 2 ends like Story 1, what would happen next in Story 2?

- ⬭ A prince would kill a dragon.
- ⬭ The young man would become a prince.
- ⬭ Mary and the young man would get married.
- ⬭ The king would give the young man some money.

- ⬭ I don't know.

*Indicate your estimates for Item 1 here:*

| PERCENT | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | | | | | | | |
| Desired | | | | | | | | | | |
| Predicted | | | | | | | | | | |

ITEM 2 AS PRINTED

2. Read the story and answer the question which follows it.

One day Amos the Ant took his lunch to the park. He sat under a tree and started to eat. Then some children came over. Amos gave them some food. It was a fine day for a picnic.

What did Amos do FIRST in the story?

- ⬭ He had a picnic.
- ⬭ He ate his lunch.
- ⬭ He climbed a tree.
- ⬭ He went to the park.
- ⬭ He found some children.

- ⬭ I don't know.

*Indicate your estimates for Item 2 here:*

| PERCENT | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | | | | | | | |
| Desired | | | | | | | | | | |
| Predicted | | | | | | | | | | |

ITEM 3 AS PRINTED

3. Read the passage and answer the question which follows it.

One spring Farmer Brown had an unusually good field of wheat. Whenever he saw any birds in this field, he got his gun and shot as many of them as he could. In the middle of the summer he found that his wheat was being ruined by insects. With no birds to feed on them, the insects had multiplied very fast. What Farmer Brown did not understand was this: A bird is not simply an animal that eats food the farmer may want for himself. Instead, it is one of many links in the complex surroundings, or environment, in which we live.

How much grain a farmer can raise on an acre of ground depends on many factors. All of these factors can be divided into two big groups. Such things as the richness of the soil, the amount of rainfall, the amount of sunlight, and the temperature belong together in one of these groups. This group may be called non-living factors. The second group may be called living factors. The living factors in any plant's environment are animals and other plants. Wheat, for example, may be damaged by wheat rust, a tiny plant that feeds on wheat; or it may be eaten by plant-eating animals such as birds or grasshoppers. . .

It is easy to see that the relations of plants and animals to their environment are very complex, and that any change in the environment is likely to bring about a whole series of changes.

What is the MAIN idea of this passage?

- ⬭ Farmers should not shoot any birds.
- ⬭ Insects eat up all the farmer's crops.
- ⬭ No crops can be grown without sunlight.
- ⬭ Birds eat up most of the farmer's grain.
- ⬭ All living things are affected by living things.

- ⬭ I don't know.

*Indicate your estimates for Item 3 here:*

| PERCENT | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | | | | | | | |
| Desired | | | | | | | | | | |
| Predicted | | | | | | | | | | |

ITEM 4 AS PRINTED

4. Number the events in the order in which they would happen at a baseball game. Place a 1 in the box beside the event that would happen first. Place a 2 in the box beside the event that would happen next. Continue to number the events in the order in which they would happen at a baseball game.

☐ The final score was Yankees 5, Red Sox 4.

☐ The home team was taking the field for the start of the game.

☐ The people in the stands stood for the seventh inning stretch.

☐ The crowd cheered as the third out in the fourth inning was made.

☐ The Yankee outfielder slid into home plate, tying the ball game in the ninth inning.

• ⬭ I don't know.

SCORING INFORMATION FOR ITEM 4

The order of events has to be exact to have a correct response.

*Indicate your estimates for Item 4 here:*

| PERCENT | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Minimal | | | | | | | | | | |
| Desired | | | | | | | | | | |
| Predicted | | | | | | | | | | |

NOTE

The additional 11 items were presented in the remainder of the booklet.

Attachment IIb

MAINE TEACHER OUTCOMES STUDY

Results by Sample and Overall

Maine Teacher Outcomes Study

| Item | | Sample 1 | | Sample 2 | | Sample 3 | | Overall | |
|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE |
| 1 | Minimal | 54.2 | 2.15 | 50.7 | 1.47 | 49.0 | 1.48 | 51.3 | 1.00 |
| | Desired | 82.4 | 2.12 | 79.1 | 1.64 | 80.8 | 1.59 | 80.8 | 1.04 |
| | Predicted | 69.2 | 1.46 | 65.1 | 1.97 | 66.0 | 1.15 | 66.8 | 0.90 |
| 2 | Minimal | 58.7 | 2.33 | 54.2 | 1.98 | 52.4 | 1.20 | 55.1 | 1.10 |
| | Desired | 86.9 | 1.94 | 80.2 | 1.98 | 80.2 | 1.88 | 82.4 | 1.12 |
| | Predicted | 72.6 | 2.28 | 67.9 | 2.86 | 68.0 | 1.85 | 69.5 | 1.37 |
| 3 | Minimal | 36.3 | 2.22 | 32.8 | 1.79 | 34.0 | 2.02 | 34.4 | 1.16 |
| | Desired | 63.1 | 1.72 | 57.0 | 2.80 | 62.8 | 2.16 | 61.0 | 1.31 |
| | Predicted | 46.0 | 2.34 | 41.0 | 2.51 | 46.1 | 2.08 | 44.4 | 1.34 |
| 4 | Minimal | 48.6 | 1.69 | 44.3 | 2.33 | 41.9 | 1.43 | 44.9 | 1.07 |
| | Desired | 76.5 | 1.71 | 71.4 | 2.74 | 69.6 | 1.97 | 72.5 | 1.26 |
| | Predicted | 60.9 | 1.50 | 56.4 | 2.71 | 52.0 | 2.15 | 56.4 | 1.26 |
| 5 | Minimal | 54.9 | 2.42 | 55.5 | 2.03 | 52.6 | 2.48 | 54.4 | 1.34 |
| | Desired | 83.5 | 1.48 | 81.5 | 2.04 | 79.7 | 2.45 | 81.6 | 1.17 |
| | Predicted | 69.6 | 2.30 | 69.0 | 2.02 | 66.8 | 2.49 | 68.5 | 1.32 |
| 6 | Minimal | 52.8 | 1.46 | 49.3 | 2.65 | 49.3 | 1.56 | 50.5 | 1.14 |
| | Desired | 77.9 | 1.46 | 75.3 | 2.64 | 76.1 | 1.52 | 76.5 | 1.13 |
| | Predicted | 66.8 | 1.76 | 60.4 | 2.64 | 60.1 | 2.06 | 62.4 | 1.26 |
| 7A | Minimal | 57.8 | 1.95 | 58.5 | 1.73 | 55.4 | 1.68 | 57.2 | 1.03 |
| | Desired | 86.3 | 1.18 | 85.0 | 1.79 | 83.6 | 1.71 | 85.0 | 0.91 |
| | Predicted | 71.4 | 2.13 | 71.8 | 1.90 | 72.8 | 1.49 | 72.0 | 1.07 |
| 7B | Minimal | 55.7 | 1.42 | 53.9 | 2.23 | 52.2 | 1.91 | 53.9 | 1.09 |
| | Desired | 81.6 | 1.39 | 78.9 | 1.32 | 78.0 | 1.49 | 79.5 | 0.81 |
| | Predicted | 67.0 | 1.98 | 65.2 | 1.60 | 66.3 | 2.50 | 66.2 | 1.19 |
| 8 | Minimal | 47.2 | 1.98 | 44.0 | 1.78 | 45.4 | 2.00 | 45.6 | 1.11 |
| | Desired | 75.5 | 1.67 | 70.2 | 1.81 | 72.38 | 2.41 | 72.7 | 1.15 |
| | Predicted | 59.9 | 2.26 | 54.7 | 2.01 | 57.0 | 2.85 | 57.2 | 1.38 |
| 9A | Minimal | 50.6 | 2.56 | 50.9 | 1.61 | 48.7 | 1.96 | 50.1 | 1.20 |
| | Desired | 79.5 | 2.08 | 77.6 | 1.55 | 77.2 | 2.51 | 78.1 | 1.20 |
| | Predicted | 64.0 | 2.73 | 63.2 | 1.27 | 63.8 | 2.72 | 63.6 | 1.35 |
| 9B | Minimal | 43.9 | 2.21 | 42.5 | 1.98 | 43.5 | 2.46 | 43.3 | 1.28 |
| | Desired | 72.6 | 1.78 | 69.6 | 2.19 | 71.6 | 2.73 | 71.3 | 1.31 |
| | Predicted | 56.5 | 1.60 | 53.8 | 1.76 | 57.0 | 2.56 | 55.8 | 1.16 |

Maine Teacher Outcomes Study (con.)

| Item | | Sample 1 | | Sample 2 | | Sample 3 | | Overall | |
|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE |
| 10 | Minimal | 56.9 | 2.31 | 54.5 | 2.24 | 53.5 | 1.87 | 55.0 | 1.24 |
| | Desired | 84.4 | 1.42 | 81.9 | 1.82 | 81.6 | 1.66 | 82.6 | 0.95 |
| | Predicted | 70.2 | 1.39 | 67.6 | 2.46 | 66.8 | 2.28 | 68.2 | 1.21 |
| 11 | Minimal | 55.3 | 1.94 | 55.9 | 1.86 | 50.9 | 1.95 | 54.0 | 1.11 |
| | Desired | 82.2 | 2.02 | 82.4 | 1.66 | 79.4 | 1.63 | 81.3 | 1.03 |
| | Predicted | 67.9 | 2.19 | 68.7 | 1.86 | 65.6 | 2.87 | 67.4 | 1.35 |
| 12 | Minimal | 59.1 | 2.52 | 57.0 | 1.93 | 55.9 | 2.56 | 57.3 | 1.36 |
| | Desired | 85.3 | 1.55 | 83.6 | 1.49 | 82.9 | 1.15 | 83.9 | 0.81 |
| | Predicted | 73.1 | 1.92 | 71.6 | 1.57 | 71.6 | 2.12 | 72.1 | 1.09 |
| 13 | Minimal | 43.0 | 2.23 | 38.2 | 3.07 | 39.0 | 2.77 | 40.1 | 1.57 |
| | Desired | 74.0 | 2.19 | 65.3 | 2.93 | 67.8 | 2.59 | 69.1 | 1.49 |
| | Predicted | 55.5 | 1.83 | 48.8 | 3.18 | 50.1 | 3.05 | 51.5 | 1.59 |
| Theme 6 | Minimal | 51.4 | 1.57 | 49.2 | 1.43 | 47.9 | 1.12 | 49.5 | 0.80 |
| | Desired | 78.7 | 1.04 | 75.4 | 1.29 | 75.6 | 1.30 | 76.5 | 0.70 |
| | Predicted | 64.3 | 1.23 | 61.3 | 1.50 | 61.6 | 1.59 | 62.4 | 0.84 |
| Theme 7 | Minimal | 51.5 | 1.96 | 49.9 | 1.53 | 48.6 | 2.41 | 50.0 | 1.09 |
| | Desired | 79.7 | 1.62 | 76.8 | 1.32 | 76.8 | 1.45 | 77.7 | 0.94 |
| | Predicted | 64.6 | 1.54 | 62.3 | 1.24 | 62.5 | 1.35 | 63.1 | 1.04 |
| Total | Minimal | 51.4 | 1.65 | 49.4 | 1.32 | 48.2 | 1.86 | 49.7 | 0.85 |
| | Desired | 79.1 | 1.22 | 76.0 | 1.14 | 76.1 | 1.83 | 77.0 | 0.72 |
| | Predicted | 64.4 | 1.31 | 61.8 | 1.24 | 61.9 | 1.67 | 62.7 | 0.86 |

Attachment IIc

MAINE TEACHER OUTCOMES STUDY

Overall Estimates with
Actual Student Performance

Maine Teacher Outcomes Study

| Item | Teachers Estimates | | | | | | Student Performance | |
|---|---|---|---|---|---|---|---|---|
| | Minimal | | Desired | | Predicted | | | |
| | % | SE | % | SE | % | SE | % | SE |
| 1 | 51.3 | 1.00 | 80.8 | 1.04 | 66.8 | 0.90 | 73.0 | 1.99 |
| 2 | 55.1 | 1.10 | 82.4 | 1.12 | 69.5 | 1.37 | 81.5 | 1.63 |
| 3 | 34.4 | 1.16 | 61.0 | 1.31 | 44.4 | 1.34 | 32.2 | 2.15 |
| 4 | 44.9 | 1.07 | 72.5 | 1.26 | 56.4 | 1.26 | 40.3 | 2.43 |
| 5 | 54.4 | 1.34 | 81.6 | 1.17 | 68.5 | 1.32 | 84.8 | 1.07 |
| 6 | 50.5 | 1.14 | 76.5 | 1.13 | 62.4 | 1.26 | 59.9 | 2.30 |
| 7A | 57.2 | 1.03 | 85.0 | 0.91 | 72.0 | 1.07 | 75.3 | 1.68 |
| 7B | 53.9 | 1.09 | 79.5 | 0.81 | 66.2 | 1.19 | 52.0 | 1.82 |
| 8 | 45.6 | 1.11 | 72.7 | 1.15 | 57.2 | 1.38 | 68.8 | 2.02 |
| 9A | 50.1 | 1.20 | 78.1 | 1.20 | 63.6 | 1.35 | 68.3 | 2.27 |
| 9B | 43.3 | 1.28 | 71.3 | 1.31 | 55.8 | 1.16 | 62.1 | 2.26 |
| 10 | 55.0 | 1.24 | 82.6 | 0.95 | 68.2 | 1.21 | 74.3 | 2.10 |
| 11 | 54.0 | 1.11 | 81.3 | 1.03 | 67.4 | 1.35 | 86.4 | 1.49 |
| 12 | 57.3 | 1.36 | 83.9 | 0.81 | 72.1 | 1.09 | 67.8 | 1.83 |
| 13 | 40.1 | 1.57 | 69.1 | 1.49 | 51.5 | 1.59 | 35.7 | 2.25 |
| Theme 6 | 49.5 | 0.80 | 76.5 | 0.70 | 62.4 | 0.84 | 63.1 | 0.87 |
| Theme 7 | 50.0 | 1.09 | 77.7 | 0.94 | 63.1 | 1.04 | 65.8 | 1.15 |
| Total | 49.7 | 0.85 | 77.0 | 0.72 | 62.7 | 0.86 | 64.2 | 0.87 |

Attachment IId

MAINE TEACHER OUTCOMES STUDY

Opinion Survey

Twenty-five teachers were selected from all teachers who had completed the original booklet, based on the approximate frequencies of each type of special and regular classroom teacher. The types of teachers selected were:

| | |
|---|---|
| Remedial Reading | 3 teachers |
| SLD Reading Program | 1 teacher |
| Reading Consultant | 1 teacher |
| Reading Supervisor | 1 teacher |
| Developmental Reading | 1 teacher |
| Classroom Teachers - 3rd Grade | 9 teachers |
| Classroom Teachers - 3rd/4th Grade | 1 teacher |
| Classroom Teachers - 4th Grade | 8 teachers |

Each teacher was mailed a short letter signed by Dr. Maxcy, the questionnaire (see Attachment A), the Teacher Outcomes Booklet, the original cover letters, and a return envelope. They were asked to complete the questionnaire as soon as possible and return it to RTI. No identification code was included.

STATE OF MAINE
Department of
Educational and Cultural Services
AUGUSTA, MAINE 04330

Dear Teacher:

In March or April of this year, you completed a Teacher Outcomes Study Booklet in connection with the Maine Assessment of Educational Progress. This is the first time this instrument has been administered, and we are now trying to assess its value and to determine ways in which it can be improved.

I would appreciate your answering the attached questionnaire and returning it in the self-addressed envelope as soon as possible. A copy of the booklet and cover materials are enclosed for your reference. Please return them with the questionnaire.

Your name will not be associated with your responses--it appears only on the envelope in which you received this letter.

If you have any questions, please feel free to contact:

Ms. Muriel Elliott
Research Triangle Institute
Research Triangle Park, North Carolina 27709
(919) 549-8311

We appreciate your continued cooperation with this project.

Sincerely,

Horace P. Maxcy, Jr.
Coordinator, State Educational
Assessment Program

HPM:lh

Enclosures: 1) Teacher Questionnaire
2) Teacher Outcomes Study Booklet
3) Original cover letters
4) Return envelope

Four seasons for Me.

MAINE ASSESSMENT OF EDUCATIONAL PROGRESS

TEACHER QUESTIONNAIRE

Teacher Outcomes Study Booklet

A. How many undergraduate courses did you take in reading?

_____

B. How many in-service reading courses or reading workshops have you attended?

_____

C. (If applicable) How many graduate courses have you taken in reading?

_____

D. What teaching experience have you had?

☐ First Year of Teaching

☐ 1 - 3 Years of Teaching

☐ 4+ Years of Teaching

There are some questions about the Teacher Outcomes Study Booklet below. We would appreciate any comments which you wish to make on any of the questions or on areas which you feel are not covered.

1. Did you find the format of the "minimal/desired/predicted" sections of the Teacher Outcomes Study Booklet easy to follow?

☐ Yes ☐ No

Comments: _____

_____

_____

2. Did you find the format of the section on stimulus materials easy to follow?

☐ Yes ☐ No

Comments: _____

_____

_____

3. Approximately how long did it take you to complete the booklet?

_____

4. Did you understand the definitions of the following?

"Minimal Acceptable Outcome" ☐ Yes ☐ No

"Desired Outcome" ☐ Yes ☐ No

"Predicted Outcome" ☐ Yes ☐ No

Comments: _____

_____

_____

5. Did you feel comfortable making judgments about statewide performance?

☐ Yes ☐ No

Comments: _____

_____

_____

6. Please rate how useful you think these results can be when compared to the performance results for Maine 9-year-olds.

☐ Very Useful ☐ Somewhat Useful ☐ Useless

Comments: _____

_____

_____

7. If you have any additional thoughts about the Teacher Outcomes Study Booklet, please comment on them below.

_____

_____

_____

_____

Results From:

MAINE ASSESSMENT OF EDUCATIONAL PROGRESS

TEACHER OPINION QUESTIONNAIRE

Teacher Outcomes Study Booklet

A. How many undergraduate courses did you take in reading?

| Category | Frequency |
|---|---|
| 0 | 1 |
| 1 | 2 |
| 1 - 2 | 1 |
| 2 | 1 |
| 3 | 4 |
| 4 | 2 |
| 4 - 5 | 1 |
| 6 | 1 |
| 8 | 1 |
| ? | 1 |

B. How many in-service reading courses or reading workshops have you attended?

| Category | Frequency |
|---|---|
| 0 | 2 |
| 1 | 3 |
| 2 | 3 |
| 3 | 1 |
| 5+ | 2 |
| 5 - 6 | 1 |
| 10 | 1 |
| 11 | 1 |
| several | 1 |
| ? | 1 |

C. (If applicable) How many graduate courses have you taken in reading?

| Category | Frequency |
|---|---|
| 0 | 8 |
| 1 | 3 |
| 2 - 3 | 1 |
| 3 | 1 |
| 4 | 1 |
| 4 - 5 | 1 |
| 5+ | 1 |

D. What teaching experience have you had?

2 ☐ First Year of Teaching

2 ☐ 1-3 Years of Teaching

12 ☐ 4+ Years of Teaching

1. Did you find the format of the "minimal/desired/predicted" sections of the Teacher Outcomes Study Booklet easy to follow?

12 ☐ Yes 4 ☐ No

No..."Most of the time, the difference was easy to determine, but on some questions the outcomes were hard to determine."

Yes.."Almost too easy. I found that I tended to cluster my responses --when in doubt, I changed my answers to avoid clustering-- Blanks to be filled in might be used. Ex.: minimal 40
desired 70
predicted 60 "

"It's a good thing you explained each fully."

"Items 1-8 M.I. Yes; Item 9 Yes; Item 10 Yes; Item 11 No (Idea is directly stated.); Item 12 Yes; Item 13 Yes."

"This would follow naturally within class sessions."

"I feel it is very difficult to predict this on a statewide basis."

2. Did you find the format of the section on stimulus materials easy to follow?

13 ☐ Yes  3 ☐ No

Yes.."Some pupils might be confused by the numbers used in the selection RAINING."

"This would follow naturally within class sessions."

"It is difficult to say whether a particular passage is appropriate or inappropraite because children differ in interests and backgrounds. What is appropriate for one is not necessarily appropriate for all."

Q1 and Q2: One teacher responded that he/she didn't understand the minimal/desired/predicted sections but did understand the section on stimulus materials. This teacher was in his/her first year of teaching, has had 3 undergraduate reading courses, and had attended one workshop.

Three teachers responded that they understood neither section. All three had been teaching for more than 4 years and had the following backgrounds:

| Undergrad Courses | Workshops | Grad Courses |
|---|---|---|
| 4 | Several | 0 |
| 1 | 1 | 1 |
| ? | ? | 4-5 |

3. Approximately how long did it take you to complete the booklet?

| Category | Frequency |
|---|---|
| 1/2 - 2/3 | 1 |
| 3/4 | 3 |
| 1 | 7 |
| 1 - 1 1/2 | 1 |
| 1 1/4 | 1 |
| 2 | 1 |
| "2 evenings" | 1 |

4. Did you understand the definitions of the following?

| | | |
|---|---|---|
| "Minimal Acceptable Outcome" | ☐ Yes | ☐ No |
| "Desired Outcome" | ☐ Yes | ☐ No |
| "Predicted Outcome" | ☐ Yes | ☐ No |

| Category | Frequency |
|---|---|
| yes-yes-yes | 15 |
| no-no-no | 1 |

Yes (to all three)

"This would follow naturally within class sessions."

"Ideally, shouldn't our minimal acceptable outcome be approximately the equal of desired outcome--if we are to teach skills for mastery?"

"Predicted was hard to differentiate from Desired for me. I found that I almost interchanged the two."

"I understood the explanations, but found it hard to make some of the judgments."

"Am not accustomed to thinking in these terms, however, and it was 'thought prevoking' to use this criteria."

The one teacher who responded that he/she did not understand any of the definitions had had more than 4 years of teaching experience, 4 undergraduate courses in reading, several workshops, and no graduate courses in reading. He/she did not comment.

5. Did you feel comfortable making judgments about statewide performance?

4 ☐ Yes 12 ☐ No

No..."I'm a first year teacher."

"I thought some of these stories were too advanced and vocab. too difficult for nine year old students."

"Not particularly since this state (Maine) is large with a great variation in its educational, economic and cultural factors. There is little opportunity to compare methods, practices and materials with people from other areas."

"Am concerned about what goes on here and it's hard to think about the entire state, knowing many areas have entirely different backgrounds."

"My experience has been in one elementary school for only 3 years."

Yes.."Having worked in various parts of the state I felt that I could judge fairly accurately from the students I had had."

Only four teachers said that they felt comfortable making statewide judgments. Their backgrounds were as follows:

| Undergrad Courses | Workshops | Grad Courses | Years Experience | |
|---|---|---|---|---|
| 2 | 3 | 0 | 1-3 | no comment on this |
| 3 | 5+ | 5+ | 4+ | " |
| 8 | 10 | 1 | 4+ | " |
| 3 | 2 | 2-3 | 4+(14) | comment on this Q. |

6. Please rate how useful you think these results can be when compared to the performance results for Maine 9-year-olds.

4 ☐ Very Useful  10 ☐ Somewhat Useful  2 ☐ Useless

Somewhat Useful:

"Would want to study the results before I termed them very anything. I'm skeptical."

"Perhaps if used to show the correlations between performance by students from a certain area and teacher expectations in that same area."

Very Useful:

"It would be most interesting to gather information concerning materials, methods, organizational patterns, and classroom practices from selected areas throughout the state and compare their effectiveness in reaching the pupils--(nine-year-olds and then continue with other age groups.)."

"If the results are used to implement and complement the reading program statewise. If school districts receive data and use it to modify or bolster their Reading program, the survey will have been very useful."

Two teachers thought the Teacher Outcomes results would be useless. Their other responses were as follows:

| Undergrad Courses | Workshops | Grad Courses | Years Experience | Format Easy to Follow M/D/P | Stimulus |
|---|---|---|---|---|---|
| 4 | Several | 0 | 4+ | no | no |
| ? | ? | 4-5 | 4+ | no | no |

| Time | Definitions M | D | P | Judgments |
|---|---|---|---|---|
| 2 Evenings | no | no | no | no |
| 1 hr. | yes | yes | yes | no |

Of the four teachers who felt that the results would be very useful, three also said that they felt comfortable making statewide judgments of performance.

In general it seems that the teachers found the format easy to follow and that they understood the definitions of minimal, desired, and predicted outcomes. However, except for a few teachers who had had relatively more experience, the majority felt uncomfortable making judgments on a statewide basis. Only two teachers felt that the study would be useless; these teachers had a generally negative opinion of the quesitonnaire as a whole.

7. If you have any additional thoughts about the Teacher Outcomes Study Booklet, please comment on them below.

"A waste of time."

"Lengthy."

"You should have taken into consideration the students that have a bilingual problem."

"I think that if I had had opportunity to use the assessment materials with a selected group of pupils--from all ranges of ability and achievement--I would have felt that my assessment of the project would have been more valid. Working as I do mainly with pupils of low achievement and/or accompanying emotional problems, my judgment may be somewhat slanted."

"I'd be interested in knowing how I was selected for a second response to the final results of this study."

"I am not sure of the value of the survey if there is any. I am not impressed by surveys and generalizations."

"Some were too difficult for 9 year olds."

"A magnificent effort. I'll be very interested to see the results and find out exactly how useful something like this is."

Attachment IIIa

RICHFIELD TEACHER OUTCOMES STUDY

Results by Item

Richfield Teacher Outcomes Study
9-Year-Olds Package 1

| Item | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 1A | 40 | 80 | 60 | 75.0 | -15.0 |
| 1B | 65 | 90 | 80 | 71.4 | 8.6 |
| 1C | 35 | 65 | 60 | 62.3 | -2.3 |
| 2A | 95 | 100 | 98 | 97.4 | 0.6 |
| 2B | 95 | 100 | 98 | 97.8 | 0.2 |
| 2C | 95 | 100 | 98 | 91.4 | 6.6 |
| 2D | 95 | 100 | 98 | 95.8 | 2.2 |
| 2E | 90 | 98 | 95 | 80.4 | 14.6 |
| 2F | 95 | 100 | 98 | 93.0 | 5.0 |
| 2G | 95 | 100 | 98 | 91.6 | 6.4 |
| 2H | 95 | 100 | 98 | 90.4 | 7.6 |
| 3 | 50 | 75 | 60 | 73.0 | -13.0 |
| 4A | 65 | 90 | 75 | 65.1 | 9.9 |
| 4B | 40 | 80 | 55 | 78.0 | -23.0 |
| 4C | 40 | 75 | 60 | 73.7 | -13.7 |
| 5A | 40 | 75 | 60 | 85.1 | -25.1 |
| 5B | 60 | 80 | 70 | 92.4 | -22.4 |
| 5C | 50 | 80 | 65 | 87.2 | -22.2 |
| 5D | 30 | 60 | 40 | 47.8 | -7.8 |
| 5E | 30 | 60 | 40 | 61.0 | -21.0 |
| 5F | 50 | 70 | 60 | 81.8 | -21.8 |
| 5G | 50 | 75 | 60 | 76.9 | -16.9 |
| 5H | 60 | 80 | 70 | 71.5 | -1.5 |
| 6A | 15 | 30 | 20 | 33.6 | -13.6 |
| 6B | 25 | 55 | 35 | 56.0 | -21.0 |
| 7A | 30 | 50 | 40 | 54.0 | -14.0 |
| 7B | 40 | 65 | 55 | 60.8 | -5.8 |
| 7C | 40 | 60 | 50 | 54.4 | -4.4 |
| 7D | 30 | 55 | 35 | 38.1 | -3.1 |
| 7E | 25 | 50 | 35 | 37.8 | -2.8 |
| 7F | 40 | 70 | 50 | 52.4 | -2.4 |
| 7G | 30 | 50 | 40 | 41.2 | -1.2 |
| 7H | 25 | 50 | 40 | 43.9 | -3.9 |
| 8A | 50 | 75 | 65 | 74.8 | -9.8 |
| 8B | 60 | 80 | 70 | 71.6 | -1.6 |
| 8C | 60 | 80 | 70 | 71.4 | -1.4 |
| 9A | 50 | 80 | 65 | 59.9 | 5.1 |
| 9B | 75 | 90 | 85 | 77.2 | 7.8 |
| 9C | 50 | 75 | 60 | 74.2 | -14.2 |
| 10A | 45 | 70 | 55 | 68.5 | -13.5 |
| 10B | 80 | 90 | 85 | 82.4 | 2.6 |
| 10C | 45 | 60 | 50 | 55.7 | -5.7 |

Richfield Teacher Outcomes Study
9-Year-Olds Package 1 (con.)

| Item | Teacher Estimates | | | Actual Student Performance | Teacher Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 11A | 65 | 80 | 70 | 52.5 | 17.5 |
| 11B | 50 | 70 | 60 | 66.8 | -6.8 |
| 11C | 50 | 80 | 70 | 68.2 | 1.8 |
| 11D | 50 | 70 | 60 | 70.0 | -10.0 |
| 11E | 50 | 65 | 60 | 73.6 | -13.6 |
| 11F | 50 | 75 | 65 | 30.8 | 34.2 |
| 11G | 60 | 80 | 75 | 67.7 | 7.3 |
| 11H | 60 | 80 | 75 | 62.7 | 12.3 |
| 12A | 55 | 70 | 65 | 66.7 | 1.7 |
| 12B | 55 | 75 | 65 | 75.5 | -10.5 |
| 12C | 75 | 80 | 80 | 72.7 | 7.3 |
| 13A | 70 | 80 | 75 | 95.7 | -20.7 |
| 13B | 70 | 80 | 75 | 97.8 | -22.8 |
| 13C | 70 | 80 | 75 | 98.4 | -23.4 |
| 13D | 60 | 70 | 65 | 67.5 | -2.5 |
| 13E | 70 | 80 | 75 | 94.0 | -19.0 |
| 13F | 75 | 90 | 85 | 94.1 | -9.1 |
| 13G | 75 | 90 | 85 | 99.4 | -14.4 |
| 13H | 70 | 80 | 75 | 94.6 | -19.6 |
| 14A | 75 | 85 | 80 | 76.6 | 3.4 |
| 14B | 40 | 60 | 50 | 62.4 | -12.4 |
| 15 | 35 | 60 | 45 | 39.3 | 5.7 |
| 16 | 30 | 60 | 45 | 77.0 | -32.0 |

Richfield Teacher Outcomes Study
9-Year-Olds Package 2

| Item[1/] | Teacher Estimates | | | Actual Student Performance | Teacher Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 2A | 25 | 50 | 40 | 86.8 | -46.8 |
| 2B | 25 | 50 | 40 | 59.6 | -19.6 |
| 2C | 45 | 60 | 50 | 75.8 | -25.8 |
| 2D | 30 | 50 | 40 | 69.2 | -19.2 |
| 2E | 45 | 70 | 60 | 78.0 | -18.0 |
| 2F | 35 | 60 | 50 | 69.5 | -19.5 |
| 2G | 35 | 60 | 50 | 77.5 | -27.5 |
| 2H | 40 | 60 | 50 | 72.6 | -22.6 |
| 3 | 75 | 90 | 85 | 74.3 | 10.7 |
| 5A | 85 | 95 | 90 | 86.6 | 3.4 |
| 5B | 85 | 95 | 90 | 88.9 | 1.1 |
| 5C | 70 | 80 | 75 | 81.4 | -6.4 |
| 5D | 70 | 80 | 75 | 82.8 | -7.8 |
| 5E | 60 | 75 | 70 | 74.0 | -4.0 |
| 5F | 55 | 70 | 60 | 62.1 | -2.1 |
| 5G | 70 | 80 | 75 | 75.8 | -0.8 |
| 5H | 60 | 75 | 70 | 74.4 | -4.4 |
| 5I | 85 | 95 | 90 | 93.1 | -3.1 |
| 5J | 85 | 95 | 90 | 88.3 | 1.7 |
| 5K | 85 | 95 | 90 | 88.8 | 1.2 |
| 5L | 75 | 90 | 80 | 85.7 | -5.7 |
| 6 | 10 | 40 | 30 | 50.4 | -20.4 |
| 7 | 75 | 90 | 85 | 72.2 | 12.8 |
| 9A | 80 | 90 | 85 | 89.8 | -4.8 |
| 9B | 80 | 90 | 85 | 83.8 | 1.2 |
| 9C | 80 | 90 | 85 | 93.5 | -8.5 |
| 9D | 80 | 90 | 85 | 78.3 | 6.7 |
| 9E | 80 | 90 | 85 | 91.4 | -6.4 |
| 9F | 85 | 95 | 90 | 87.2 | 2.8 |
| 9G | 75 | 85 | 80 | 48.5 | 31.5 |
| 9H | 80 | 90 | 85 | 86.5 | -1.5 |
| 10A | 75 | 90 | 80 | 77.7 | 2.3 |
| 10B | 85 | 95 | 90 | 72.2 | 17.8 |
| 10C | 70 | 85 | 80 | 73.8 | 6.2 |
| 11A | 50 | 75 | 65 | 76.0 | -11.0 |
| 11B | 50 | 70 | 60 | 40.7 | 19.3 |
| 11C | 45 | 75 | 60 | 75.1 | -15.1 |
| 11D | 35 | 60 | 50 | 68.8 | -18.8 |
| 11E | 45 | 65 | 55 | 54.3 | 0.7 |
| 11F | 50 | 75 | 65 | 67.2 | -2.2 |
| 11G | 55 | 75 | 65 | 52.5 | 12.5 |
| 11H | 55 | 75 | 65 | 25.9 | 39.1 |

Richfield Teacher Outcomes Study
9-Year-Olds Package 2 (con.)

| Item | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 12A | 20 | 50 | 30 | 35.7 | -5.7 |
| 12B | 20 | 50 | 30 | 36.2 | -6.2 |
| 12C | 20 | 50 | 30 | 66.2 | -36.2 |
| 13A | 85 | 95 | 90 | 73.8 | 16.2 |
| 13B | 80 | 90 | 85 | 87.2 | -2.2 |
| 13C | 80 | 90 | 85 | 74.5 | 10.5 |
| 13D | 95 | 100 | 98 | 85.0 | 13.0 |
| 13E | 85 | 95 | 90 | 86.6 | 3.4 |
| 13F | 85 | 95 | 90 | 92.5 | -2.5 |
| 13G | 85 | 95 | 90 | 90.3 | -0.3 |
| 13H | 95 | 100 | 98 | 74.3 | 23.7 |
| 14A | 20 | 50 | 35 | 28.5 | 6.5 |
| 14B | 20 | 50 | 35 | 37.8 | -2.8 |
| 14C | 20 | 50 | 35 | 32.8 | 2.2 |
| 15A | 60 | 85 | 70 | 65.2 | 4.8 |
| 15B | 60 | 80 | 70 | 62.1 | 7.9 |
| 16 | 80 | 90 | 85 | 62.1 | 22.9 |

1/ Items 1A, 1B, 1C, 4A, 4B, 4C, 8A, 8B, and 8C are identical to items 1A, 1B, 1C, 4A, 4B, 4C, 8A, 8B, and 8C, respectively, in package 1.

Richfield Teacher Outcomes Study
9-Year-Olds Package 3

| Item[1/] | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 2A | 50 | 75 | 60 | 71.4 | -11.4 |
| 2B | 50 | 70 | 55 | 78.1 | -23.1 |
| 2C | 50 | 75 | 60 | 91.7 | -31.7 |
| 2D | 50 | 70 | 60 | 84.5 | -24.5 |
| 2E | 60 | 80 | 70 | 90.5 | -20.5 |
| 2F | 75 | 90 | 80 | 91.5 | -11.5 |
| 2G | 75 | 90 | 80 | 84.8 | -4.8 |
| 2H | 60 | 80 | 70 | 68.6 | 1.4 |
| 3A | 60 | 80 | 75 | 69.4 | 5.6 |
| 3B | 75 | 90 | 85 | 89.6 | -4.6 |
| 3C | 75 | 95 | 85 | 90.5 | -5.5 |
| 5A | 70 | 90 | 80 | 76.6 | 3.4 |
| 5B | 75 | 95 | 85 | 71.3 | 13.7 |
| 5C | 70 | 85 | 80 | 68.9 | 11.1 |
| 5D | 60 | 80 | 70 | 57.8 | 12.2 |
| 5E | 80 | 90 | 85 | 74.4 | 10.6 |
| 5F | 70 | 80 | 75 | 76.2 | -1.2 |
| 5G | 60 | 75 | 65 | 66.9 | -1.9 |
| 5H | 75 | 90 | 80 | 57.8 | 22.2 |
| 6A | 20 | 65 | 45 | 51.6 | -6.6 |
| 6B | 30 | 65 | 50 | 60.5 | -10.5 |
| 6C | 50 | 70 | 65 | 64.7 | 0.3 |
| 7A | 75 | 95 | 80 | 94.1 | -14.1 |
| 7B | 65 | 85 | 75 | 70.4 | 4.6 |
| 7C | 60 | 80 | 70 | 81.3 | -11.3 |
| 7D | 70 | 85 | 75 | 90.3 | -15.3 |
| 7E | 65 | 80 | 70 | 60.1 | 9.9 |
| 7F | 75 | 95 | 85 | 83.0 | 2.0 |
| 7G | 75 | 95 | 85 | 90.2 | -5.2 |
| 7H | 75 | 95 | 85 | 88.0 | -3.0 |
| 9A | 45 | 75 | 60 | 67.7 | -7.7 |
| 9B | 45 | 75 | 60 | 77.2 | -17.2 |
| 9C | 45 | 75 | 60 | 58.7 | 1.3 |
| 9D | 55 | 80 | 70 | 72.4 | -2.4 |
| 9E | 45 | 75 | 60 | 73.8 | -13.8 |
| 9F | 55 | 80 | 70 | 81.9 | -11.9 |
| 9G | 40 | 70 | 55 | 69.2 | -14.2 |
| 9H | 55 | 80 | 70 | 63.1 | 6.9 |
| 10A | 55 | 75 | 65 | 86.2 | -21.2 |
| 10B | 70 | 85 | 75 | 87.6 | -12.6 |
| 10C | 70 | 85 | 75 | 90.5 | -15.5 |

Richfield Teacher Outcomes Study
9-Year-Olds Package 3 (con.)

| Item | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 11A | 55 | 75 | 70 | 50.2 | 19.8 |
| 11B | 30 | 60 | 45 | 65.6 | -20.6 |
| 11C | 45 | 65 | 55 | 86.6 | -31.6 |
| 11D | 60 | 80 | 75 | 69.5 | 5.5 |
| 11E | 80 | 90 | 85 | 86.3 | -1.3 |
| 11F | 40 | 60 | 55 | 37.6 | 17.4 |
| 11G | 60 | 80 | 75 | 73.7 | 1.3 |
| 11H | 60 | 75 | 70 | 67.0 | 3.0 |
| 12A | 15 | 55 | 25 | 9.9 | 15.1 |
| 12B | 15 | 50 | 25 | 41.8 | -16.8 |
| 12C | 20 | 55 | 30 | 30.4 | -0.4 |
| 13A | 50 | 75 | 65 | 75.3 | -10.3 |
| 13B | 75 | 90 | 80 | 90.7 | -10.7 |
| 13C | 50 | 75 | 65 | 82.0 | -17.0 |
| 14A | 45 | 70 | 60 | 70.6 | -10.6 |
| 14B | 45 | 70 | 60 | 85.1 | -25.1 |
| 14C | 50 | 75 | 65 | 82.7 | -17.7 |
| 14D | 50 | 75 | 65 | 76.2 | -11.2 |
| 14E | 30 | 60 | 40 | 86.1 | -46.1 |
| 14F | 55 | 75 | 65 | 87.4 | -22.4 |
| 14G | 30 | 60 | 40 | 65.6 | -25.6 |
| 14H | 40 | 65 | 50 | 73.1 | -23.1 |
| 15 | 70 | 90 | 75 | 82.4 | -7.4 |
| 16 | 60 | 80 | 65 | 53.2 | 11.8 |

1/ Items 1A, 1B, 1C, 4A, 4B, 4C, 8A, 8B, and 83 are identical to items 1A, 1B, 1C, 4A, 4B, 4C, 8A, 8B, and 8C, respectively, in package 1.

Richfield Teacher Outcomes Study
13-Year-Olds Package 1

| Item | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 1A | 32 | 80 | 66 | 90.6 | -24.6 |
| 1B | 52 | 90 | 82 | 80.3 | 1.7 |
| 2 | 41 | 77 | 70 | 73.4 | -3.4 |
| 3A | 93 | 100 | 95 | 96.0 | -1.0 |
| 3B | 93 | 100 | 95 | 89.0 | 6.0 |
| 3C | 93 | 100 | 95 | 90.9 | 4.1 |
| 3D | 93 | 100 | 95 | 93.7 | 1.3 |
| 3E | 93 | 100 | 95 | 84.3 | 10.7 |
| 3F | 93 | 100 | 95 | 87.4 | 7.6 |
| 3G | 93 | 100 | 95 | 94.6 | 0.4 |
| 3H | 93 | 100 | 95 | 89.7 | 5.3 |
| 4A | 55 | 88 | 76 | 68.7 | 7.3 |
| 4B | 51 | 84 | 72 | 84.6 | -12.6 |
| 5A | 50 | 86 | 74 | 72.0 | 2.0 |
| 5B | 50 | 86 | 74 | 80.9 | -6.9 |
| 5C | 50 | 86 | 74 | 78.9 | -4.9 |
| 5D | 50 | 86 | 74 | 66.0 | 8.0 |
| 5E | 50 | 86 | 74 | 69.1 | 4.9 |
| 5F | 50 | 86 | 74 | 80.3 | -6.3 |
| 5G | 50 | 86 | 74 | 60.5 | 13.5 |
| 5H | 50 | 86 | 74 | 73.0 | 1.0 |
| 6A | 46 | 82 | 61 | 62.1 | -1.1 |
| 6B | 46 | 82 | 61 | 61.5 | -0.5 |
| 6C | 46 | 82 | 61 | 61.0 | 0.0 |
| 6D | 46 | 82 | 61 | 77.6 | -6.6 |
| 6E | 46 | 82 | 61 | 90.3 | -29.3 |
| 6F | 46 | 82 | 61 | 76.2 | -15.2 |
| 6G | 46 | 82 | 61 | 73.7 | -12.7 |
| 6H | 46 | 82 | 61 | 76.4 | -15.4 |
| 7A | 44 | 80 | 64 | 59.3 | 4.7 |
| 7B | 50 | 86 | 79 | 70.2 | 8.8 |
| 7C | 44 | 86 | 72 | 50.2 | 11.8 |
| 8A | 50 | 90 | 70 | 96.6 | -16.6 |
| 8B | 50 | 90 | 70 | 87.4 | -17.4 |
| 8C | 50 | 90 | 70 | 94.6 | -24.6 |
| 8D | 50 | 90 | 70 | 92.0 | -22.0 |
| 8E | 50 | 90 | 70 | 62.1 | 7.9 |
| 8F | 50 | 90 | 70 | 87.3 | -17.3 |
| 8G | 50 | 90 | 70 | 89.9 | -19.9 |
| 8H | 50 | 90 | 70 | 89.3 | -19.3 |
| 9A | 60 | 95 | 75 | 92.6 | -17.6 |
| 9B | 60 | 95 | 75 | 89.4 | -14.4 |
| 9C | 60 | 95 | 75 | 90.5 | -15.5 |

Richfield Teacher Outcomes Study
13-Year-Olds Package 1 (con.)

| Item | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 9D | 60 | 95 | 75 | 84.6 | -9.6 |
| 9E | 60 | 95 | 75 | 94.6 | -19.6 |
| 9F | 60 | 95 | 75 | 91.4 | -16.4 |
| 9G | 60 | 95 | 75 | 88.6 | -13.6 |
| 9H | 60 | 95 | 75 | 82.3 | -7.3 |
| 10A | 48 | 84 | 67 | 83.6 | -16.6 |
| 10B | 56 | 93 | 84 | 67.1 | 16.9 |
| 10C | 57 | 92 | 84 | 92.6 | -8.6 |
| 11A | 66 | 95 | 84 | 96.8 | -12.8 |
| 11B | 60 | 87 | 73 | 84.5 | -11.5 |
| 12 | 65 | 97 | 84 | 70.7 | 13.3 |
| 13A | 47 | 86 | 71 | 59.9 | 11.1 |
| 13B | 44 | 84 | 66 | 84.2 | -18.2 |
| 13C | 58 | 93 | 81 | 90.8 | -9.8 |
| 13D | 76 | 100 | 95 | 97.4 | -2.4 |
| 14A | 41 | 79 | 59 | 60.4 | -1.4 |
| 14B | 40 | 78 | 58 | 75.0 | -17.0 |
| 14C | 45 | 84 | 69 | 74.2 | -5.2 |
| 14D | 46 | 85 | 74 | 75.0 | -1.0 |
| 14E | 41 | 82 | 64 | 54.6 | 9.4 |
| 15A | 60 | 95 | 81 | 79.1 | 1.9 |
| 15B | 45 | 95 | 75 | 91.1 | -16.1 |
| 15C | 45 | 95 | 75 | 94.8 | -19.8 |
| 15D | 45 | 95 | 75 | 92.0 | -17.0 |
| 15E | 45 | 95 | 75 | 97.4 | -22.4 |
| 15F | 45 | 95 | 70 | 94.8 | -24.8 |
| 15G | 45 | 95 | 75 | 84.0 | -9.0 |
| 15H | 45 | 95 | 75 | 65.4 | 9.6 |
| 16A | 50 | 86 | 66 | 82.6 | -16.6 |
| 16B | 37 | 73 | 56 | 51.9 | 4.1 |
| 16C | 42 | 78 | 61 | 42.1 | 18.9 |
| 17A | 65 | 96 | 87 | 90.0 | -3.0 |
| 17B | 65 | 98 | 87 | 98.0 | -11.0 |
| 17C | 66 | 98 | 88 | 73.5 | 14.5 |
| 17D | 64 | 94 | 82 | 56.1 | 25.9 |
| 17E | 55 | 91 | 74 | 62.1 | 11.9 |
| 17F | 59 | 93 | 78 | 77.1 | 0.9 |
| 17G | 57 | 91 | 76 | 79.5 | -3.5 |
| 17H | 64 | 94 | 80 | 92.4 | -12.4 |
| 18A | 45 | 86 | 74 | 65.1 | 8.9 |
| 18B | 30 | 76 | 41 | 35.6 | .4 |
| 18C | 43 | 86 | 70 | 69.6 | 0.4 |
| 19A | 54 | 93 | 79 | 75.4 | 3.6 |
| 19B | 59 | 97 | 85 | 91.4 | -6.4 |
| 19C | 60 | 97 | 85 | 94.0 | -9.0 |

Richfield Teacher Outcomes Study
13-Year-Olds Package 1 (con.)

| Item | Teacher Estimates | | | Actual Student Performance | Teachers' Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 20A | 65 | 97 | 86 | 89.9 | -3.9 |
| 20B | 72 | 98 | 91 | 87.4 | 3.6 |
| 20C | 85 | 99 | 95 | 87.4 | 7.6 |
| 21A | 71 | 97 | 85 | 88.2 | -3.2 |
| 21B | 85 | 99 | 95 | 95.6 | -0.6 |
| 21C | 85 | 99 | 95 | 90.7 | 4.3 |
| 22A | 71 | 97 | 85 | 80.8 | 4.2 |
| 22B | 85 | 99 | 95 | 84.5 | 10.5 |
| 22C | 85 | 99 | 95 | 93.7 | 1.3 |
| 23A | 71 | 97 | 85 | 80.8 | 4.2 |
| 23B | 85 | 99 | 95 | 86.5 | 8.5 |
| 23C | 85 | 99 | 95 | 87.8 | 7.2 |
| 24A | 71 | 97 | 85 | 84.2 | 0.8 |
| 24B | 85 | 99 | 95 | 86.0 | 9.0 |
| 24C | 85 | 99 | 95 | 73.6 | 21.4 |

Richfield Teacher Outcomes Study
13-Year-Olds Package 2

| Item[1/] | Teacher Estimates | | | Actual Student Performance | Teacher Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 1 | 54 | 91 | 75 | 62.8 | 12.2 |
| 2 | 47 | 85 | 68 | 34.7 | 33.3 |
| 3A | 80 | 98 | 93 | 92.8 | 0.2 |
| 3B | 80 | 98 | 93 | 90.0 | 3.0 |
| 3C | 80 | 98 | 93 | 96.0 | -3.0 |
| 3D | 80 | 98 | 93 | 90.0 | 3.0 |
| 3E | 80 | 98 | 93 | 93.7 | -0.7 |
| 3F | 80 | 98 | 93 | 89.6 | 3.4 |
| 3G | 80 | 98 | 93 | 62.2 | 30.8 |
| 3H | 80 | 98 | 93 | 90.6 | 2.4 |
| 5A | 70 | 95 | 80 | 59.5 | 20.5 |
| 5B | 70 | 95 | 80 | 70.5 | 9.5 |
| 5C | 70 | 95 | 80 | 94.3 | -14.3 |
| 5D | 70 | 95 | 80 | 83.6 | -3.6 |
| 5E | 70 | 95 | 80 | 96.6 | -16.6 |
| 5F | 70 | 95 | 80 | 63.7 | 16.3 |
| 5G | 70 | 95 | 80 | 90.6 | -10.6 |
| 5H | 70 | 95 | 80 | 81.0 | -1.0 |
| 6A | 84 | 99 | 92 | 70.3 | 21.7 |
| 6B | 84 | 99 | 92 | 94.4 | -2.4 |
| 6C | 84 | 99 | 92 | 94.7 | -2.7 |
| 6D | 84 | 99 | 92 | 70.4 | 21.6 |
| 6E | 84 | 99 | 92 | 57.7 | 34.3 |
| 6F | 84 | 99 | 92 | 89.2 | 2.8 |
| 6G | 84 | 99 | 92 | 90.3 | 1.7 |
| 6H | 84 | 99 | 92 | 94.1 | -2.1 |
| 7A | 55 | 89 | 77 | 44.7 | 32.3 |
| 7B | 56 | 88 | 78 | 65.5 | 12.5 |
| 7C | 62 | 93 | 81 | 67.9 | 13.1 |
| 8A | 86 | 99 | 91 | 94.7 | -3.7 |
| 8B | 86 | 99 | 91 | 98.2 | -7.2 |
| 8C | 86 | 99 | 91 | 98.5 | -7.5 |
| 8D | 86 | 99 | 91 | 84.7 | 6.3 |
| 8E | 86 | 99 | 91 | 95.9 | -4.9 |
| 8F | 86 | 99 | 91 | 97.7 | -6.7 |
| 8G | 86 | 99 | 91 | 99.2 | -8.2 |
| 8H | 86 | 99 | 91 | 95.7 | -4.7 |
| 9A | 81 | 98 | 90 | 78.9 | 11.1 |
| 9B | 81 | 98 | 90 | 80.4 | 9.6 |
| 9C | 81 | 98 | 90 | 86.7 | 3.3 |
| 9D | 81 | 98 | 90 | 92.0 | -2.0 |
| 9E | 81 | 98 | 90 | 83.0 | 7.0 |
| 9F | 81 | 98 | 90 | 66.9 | 23.1 |
| 9G | 81 | 98 | 90 | 86.8 | 3.2 |
| 9H | 81 | 98 | 90 | 85.9 | 4.1 |

Richfield Teacher Outcomes Study
13-Year-Olds Package 2 (con.)

| Item[1/] | Teacher Estimates | | | Actual Student Performance | Teacher Prediction-Student Performance |
|---|---|---|---|---|---|
| | Minimal Acceptable | Desired | Predicted | | |
| 11A | 91 | 99 | 96 | 92.6 | 3.4 |
| 11B | 83 | 98 | 90 | 81.9 | 8.1 |
| 11C | 76 | 95 | 84 | 47.9 | 36.1 |
| 11D | 85 | 98 | 91 | 90.2 | 0.8 |
| 12A | 59 | 90 | 78 | 20.6 | 57.4 |
| 12B | 73 | 94 | 86 | 71.8 | 14.2 |
| 12C | 81 | 96 | 91 | 74.0 | 17.0 |
| 13 | 64 | 93 | 82 | 49.1 | 32.9 |
| 14 | 72 | 90 | 78 | 43.0 | 35.0 |
| 15 | 56 | 88 | 73 | 55.9 | 17.1 |
| 16 | 58 | 89 | 77 | 41.0 | 36.0 |
| 17A | 48 | 75 | 75 | 58.0 | 17.0 |
| 17B | 55 | 84 | 81 | 80.1 | 0.9 |
| 17C | 52 | 80 | 77 | 65.2 | 11.8 |
| 17D | 51 | 81 | 74 | 73.2 | 0.8 |
| 17E | 54 | 79 | 77 | 77.9 | -0.9 |
| 17F | 54 | 79 | 79 | 85.6 | -6.6 |
| 17G | 54 | 81 | 79 | 83.8 | -4.8 |
| 17H | 54 | 81 | 79 | 74.4 | 4.6 |
| 18A | 71 | 96 | 87 | 71.4 | 15.6 |
| 18B | 59 | 87 | 78 | 33.1 | 44.9 |
| 19A | 78 | 98 | 87 | 80.4 | 6.6 |
| 19B | 78 | 98 | 87 | 92.8 | -5.8 |
| 19C | 78 | 98 | 87 | 95.2 | -8.2 |
| 19D | 78 | 98 | 87 | 82.1 | 4.9 |
| 19E | 78 | 98 | 87 | 92.8 | -5.8 |
| 19F | 78 | 98 | 87 | 96.2 | -9.2 |
| 19G | 78 | 98 | 87 | 71.5 | 15.5 |
| 19H | 78 | 98 | 87 | 81.6 | 5.4 |
| 20A | 31 | 66 | 49 | 20.6 | 28.4 |
| 20B | 35 | 61 | 49 | 52.3 | -3.3 |
| 20C | 46 | 80 | 69 | 90.5 | -21.5 |
| 20D | 45 | 79 | 73 | 39.6 | 33.4 |
| 20E | 57 | 89 | 74 | 87.1 | -13.1 |
| 20F | 61 | 89 | 76 | 93.0 | -17.0 |
| 20G | 63 | 88 | 79 | 93.6 | -14.6 |
| 20H | 51 | 87 | 77 | 82.7 | -5.7 |
| 21A | 78 | 95 | 88 | 92.7 | -4.7 |
| 21B | 79 | 96 | 92 | 94.1 | -2.1 |
| 21C | 77 | 97 | 92 | 93.5 | -1.5 |

Richfield Teacher Outcomes Study
13-Year-Olds Package 2 (con.)

| Item[1/] | Teacher Estimates: Minimal Acceptable | Desired | Predicted | Actual Student Performance | Teacher Prediction-Student Performance |
|---|---|---|---|---|---|
| 23A | 79 | 98 | 90 | 87.3 | 2.7 |
| 23B | 85 | 99 | 94 | 93.4 | 0.6 |
| 23C | 84 | 98 | 93 | 89.5 | 3.5 |
| 26A | 66 | 91 | 79 | 42.5 | 36.5 |
| 26B | 73 | 94 | 85 | 51.3 | 33.7 |
| 26C | 76 | 99 | 93 | 80.3 | 12.7 |

[1/] Items 4A, 4B, 4C, 10A, 10B, 10C, 22A, 22B, 22C, 24A, 24B, 24C, 25A, 25B, and 25C are identical to items 18A, 18B, 18C, 10A, 10B, 10C, 19A, 19B, 19C, 23A, 23B, 23C, 7A, 7B, and 7C, respectively, in package 1.

Attachment IIIb

RICHFIELD TEACHER OUTCOMES STUDY

Results by Domain, Objective,
and Subobjective

Richfield Teacher Outcomes Study

9-Year-Olds

| DOS | Number of Items | Richfield Student Performance % | SE | Predicted Level | Predicted-Student Performance | Minimal Acceptable Level | Desired Level | Class |
|---|---|---|---|---|---|---|---|---|
| IA1 | 8 | 92.2 | 0.96 | 97.6 | 5.4 | 94.4 | 99.8 | N |
| IA2 | 8 | 82.4 | 1.28 | 85.0 | 2.6 | 80.0 | 90.0 | PN |
| IA3 | 8 | 92.7 | 0.77 | 76.3 | -16.4 | 70.0 | 81.3 | S |
| IA5 | 8 | 82.6 | 1.21 | 66.9 | -15.7 | 58.8 | 78.8 | S |
| IA6 | 8 | 78.4 | 1.45 | 55.6 | -22.8 | 43.1 | 68.8 | S |
| IA* | 40 | 85.6 | 0.61 | 76.3 | -9.3 | 69.3 | 83.7 | S |
| IB1 | 8 | 73.6 | 1.52 | 48.8 | -24.8 | 35.0 | 56.3 | S |
| IC1 | 8 | 67.0 | 1.26 | 66.3 | -0.7 | 53.8 | 73.1 | PS |
| IC2 | 8 | 47.8 | 1.80 | 43.1 | -4.7 | 32.5 | 56.3 | -- |
| IC* | 16 | 57.4 | 1.10 | 54.7 | -2.7 | 43.1 | 64.7 | PS |
| I** | 64 | 77.1 | 0.59 | 67.4 | -9.7 | 58.4 | 75.5 | S |
| IIA1 | 8 | 57.6 | 1.63 | 60.6 | 3.0 | 48.1 | 71.3 | -- |
| IIA2 | 12 | 81.8 | 1.09 | 79.6 | -2.2 | 73.8 | 85.4 | PS |
| IIA* | 20 | 72.1 | 1.16 | 72.0 | -0.1 | 63.5 | 79.8 | -- |
| IIB1 | 8 | 70.5 | 1.64 | 63.1 | -7.4 | 48.1 | 76.3 | PS |
| IID1 | 8 | 82.2 | 1.19 | 78.1 | -4.1 | 70.0 | 88.8 | PS |
| IID2 | 8 | 75.5 | 1.43 | 58.1 | -17.4 | 46.3 | 72.5 | S |
| IID* | 16 | 78.8 | 0.93 | 68.1 | -10.7 | 58.1 | 80.6 | PS |
| II** | 44 | 74.3 | 0.74 | 69.0 | -5.3 | 58.8 | 79.4 | PS |

Richfield Teacher Outcomes Study (continued)

9-Year-Olds

| DOS | Number of Items | Richfield Performance % | Richfield Performance SE | Predicted Level | Predicted-Student Performance | Minimal Acceptable Level | Desired Level | Class |
|---|---|---|---|---|---|---|---|---|
| IIIA1 | 21 | 68.5 | 0.92 | 62.6 | -5.9 | 51.0 | 73.8 | PS |
| IIIA2 | 2 | 54.3 | 2.01 | 60.0 | 5.7 | 47.5 | 70.0 | PN |
| IIIA3 | 11 | 62.5 | 1.01 | 55.9 | -6.6 | 44.5 | 68.6 | PS |
| IIIA* | 34 | 65.7 | 0.85 | 60.3 | -5.4 | 48.7 | 71.9 | PS |
| IIIB1 | 3 | 67.1 | 1.52 | 56.7 | -10.4 | 48.3 | 68.3 | PS |
| IIIB2 | 11 | 69.8 | 0.95 | 66.8 | -3.0 | 55.0 | 78.2 | PS |
| IIIB* | 14 | 69.2 | 0.93 | 64.6 | -4.6 | 53.6 | 76.1 | PS |
| III** | 48 | 66.7 | 0.81 | 61.6 | -5.1 | 50.1 | 73.1 | PS |
| IVA1 | 8 | 68.7 | 1.95 | 77.5 | 8.8 | 70.0 | 85.6 | PN |
| IVA2 | 3 | 27.4 | 1.70 | 26.7 | -0.7 | 16.7 | 53.3 | PN |
| IVA* | 11 | 57.4 | 1.60 | 63.6 | 6.2 | 55.5 | 76.8 | PN |
| IVB1 | 2 | 73.7 | 1.84 | 72.5 | -1.2 | 62.5 | 82.5 | -- |
| IVC1 | 8 | 83.0 | 1.44 | 90.8 | 7.8 | 86.3 | 95.0 | N |
| IVC2 | 9 | 63.3 | 1.50 | 65.0 | 1.7 | 51.7 | 73.3 | -- |
| IVC3 | 3 | 62.5 | 1.60 | 78.3 | 15.8 | 71.7 | 86.7 | N |
| IVC* | 20 | 71.0 | 0.96 | 77.3 | 6.3 | 68.5 | 84.0 | PN |
| IV** | 33 | 66.7 | 0.82 | 81.5 | 14.8 | 63.8 | 72.5 | -- |
| TOTAL | 189 | 72.0 | 0.58 | 67.2 | -4.8 | 57.3 | 76.9 | PS |

Richfield Teacher Outcomes Study

13-Year-Olds

| DOS | Number of Items | Richfield Student Performance % | SE | Predicted Level | Predicted-Student Performance | Minimal Acceptable Level | Desired Level | Class |
|---|---|---|---|---|---|---|---|---|
| IA1 | 8 | 90.7 | 0.65 | 95.0 | 4.3 | 93.0 | 100.0 | N |
| IA2 | 8 | 88.1 | 0.73 | 93.0 | 4.9 | 80.0 | 98.0 | -- |
| IA3 | 8 | 95.6 | 0.45 | 91.0 | -4.6 | 86.0 | 99.0 | PS |
| IA5 | 8 | 87.3 | 0.62 | 75.1 | -12.2 | 46.9 | 95.0 | PS |
| IA6 | 8 | 86.6 | 0.67 | 87.0 | 0.4 | 78.0 | 98.0 | -- |
| IA* | 40 | 88.9 | 0.33 | 88.2 | -0.7 | 76.8 | 98.0 | PS |
| IB1 | 8 | 87.4 | 0.58 | 70.0 | -17.4 | 50.0 | 90.0 | PS |
| IC1 | 8 | 80.0 | 0.75 | 80.0 | 0.0 | 70.0 | 95.0 | PN |
| IC2 | 8 | 72.6 | 1.18 | 74.0 | 1.4 | 50.0 | 86.0 | PS |
| IC* | 16 | 76.3 | 0.70 | 77.0 | 0.7 | 60.0 | 90.5 | -- |
| I** | 64 | 86.0 | 0.34 | 83.1 | -2.9 | 69.2 | 95.1 | PS |
| IIA1 | 8 | 72.3 | 0.90 | 61.0 | -11.3 | 46.0 | 82.0 | PS |
| IIA2 | 8 | 78.6 | 0.79 | 81.5 | 2.9 | 61.9 | 94.4 | -- |
| IIA* | 16 | 75.5 | 0.76 | 71.3 | -4.2 | 53.9 | 88.2 | PS |
| IIB1 | 8 | 74.8 | 0.93 | 77.6 | 2.8 | 52.8 | 80.0 | PS |
| IIC1 | 4 | 47.2 | 1.11 | 77.5 | 30.3 | 62.5 | 90.0 | N |
| IID1 | 8 | 69.9 | 0.61 | 68.3 | -1.6 | 48.6 | 79.9 | PS |
| IID2 | 8 | 82.6 | 0.63 | 92.0 | 9.4 | 84.0 | 99.0 | N |
| IID* | 16 | 76.3 | 0.51 | 80.1 | 3.8 | 66.3 | 89.4 | PN |
| II** | 44 | 73.1 | 0.45 | 76.2 | 3.1 | 59.0 | 87.3 | -- |

Richfield Teacher Outcomes Study (continued)

13-Year-Olds

| DOS | Number of Items | Richfield Student Performance % | SE | Predicted Level | Predicted-Student Performance | Minimal Acceptable Level | Desired Level | Class |
|---|---|---|---|---|---|---|---|---|
| IIIA1 | 24 | 78.0 | 0.50 | 88.3 | 10.3 | 71.9 | 95.4 | PN |
| IIIA2 | 3 | 83.4 | 0.75 | 75.0 | -8.4 | 50.7 | 88.7 | PS |
| IIIA3 | 12 | 75.8 | 0.60 | 80.8 | 5.0 | 64.4 | 92.9 | PN |
| IIIA* | 39 | 77.8 | 0.47 | 85.0 | 7.2 | 67.9 | 94.1 | PN |
| IIIB1 | 5 | 69.4 | 0.81 | 75.6 | 6.2 | 57.0 | 87.6 | PN |
| IIIB2 | 1 | 82.6 | 1.45 | 66.0 | -16.6 | 50.0 | 86.0 | PS |
| IIIB* | 6 | 71.6 | 0.78 | 74.0 | 2.4 | 55.8 | 87.3 | -- |
| IIID1 | 5 | 67.9 | 1.08 | 64.8 | -3.1 | 42.6 | 81.6 | PS |
| IIID2 | 2 | 50.3 | 1.48 | 57.5 | 7.2 | 37.5 | 81.0 | PN |
| IIID3 | 2 | 71.5 | 1.34 | 70.0 | -1.5 | 42.0 | 81.5 | PS |
| IIID* | 9 | 64.8 | 0.92 | 64.3 | -0.5 | 41.3 | 81.4 | PS |
| III** | 54 | 74.9 | 0.50 | 80.3 | 5.4 | 62.2 | 91.3 | PN |
| IVA1 | 8 | 89.2 | 0.83 | 75.0 | -14.2 | 60.0 | 95.0 | PS |
| IVA2 | 3 | 55.4 | 1.13 | 85.0 | 29.6 | 71.0 | 93.3 | N |
| IVA* | 11 | 80.0 | 0.67 | 77.7 | -2.3 | 63.0 | 94.5 | -- |
| IVB1 | 2 | 76.7 | 1.36 | 74.0 | -2.7 | 53.0 | 86.0 | PS |
| IVB2 | 1 | 34.7 | 1.84 | 68.0 | 33.3 | 47.0 | 85.0 | N |
| IVB3 | 2 | 52.2 | 1.33 | 82.5 | 30.3 | 65.0 | 91.5 | N |
| IVB* | 5 | 58.5 | 0.81 | 76.2 | 17.7 | 56.6 | 88.0 | PN |
| IVC2 | 8 | 82.6 | 0.82 | 90.0 | 7.4 | 81.0 | 98.0 | PN |
| IVC4 | 8 | 80.6 | 0.57 | 70.0 | -10.6 | 70.0 | 94.1 | PN |
| IVC* | 16 | 81.6 | 0.54 | 87.1 | 5.5 | 75.5 | 96.1 | PN |
| IV** | 32 | 77.4 | 0.47 | 82.2 | 4.8 | 68.3 | 94.3 | PN |
| TOTAL | 194 | 78.6 | 0.35 | 80.6 | 2.0 | 64.8 | 92.1 | -- |